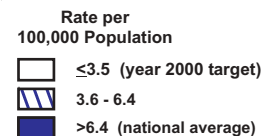


Tuberculosis Case Rates: United States, 1999



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Centers for Disease Control and Prevention
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Introduction

Reports of tuberculosis (TB) cases are submitted to the Division of TB Elimination (DTBE), Centers for Disease Control and Prevention (CDC), by 60 reporting areas (the 50 states, the District of Columbia, New York City, Puerto Rico, and other jurisdictions in the Pacific and Caribbean). In January 1993, DTBE, in conjunction with state and local health departments, implemented an expanded TB surveillance system. The expanded system collects additional information for each reported TB case in order to better monitor trends in TB, including drug-resistant TB, in the United States. A software package (SURVS-TB) for data entry, analysis, and transmission of case reports to CDC was designed and implemented as part of the expanded TB surveillance system. In 1998, the Tuberculosis Information Management System (TIMS) replaced SURVS-TB in order to provide reporting areas with a comprehensive software for surveillance, patient management, and program evaluation.

This publication, *Reported Tuberculosis in the United States, 1999*, presents summary data for TB cases reported to DTBE during 1999. It is similar to previous publications (page 5, #19) and contains six major sections. The first section is new this year and presents trends in the overall TB case counts and case rates by selected demographic and clinical characteristics. In addition to Table 1, which presents data from 1953 to the present, Tables 2 through 6 present data for the past 11 years, and Tables 7 through 10 present data collected since implementation of the expanded system in 1993, including drug resistance and clinical outcomes.

The second section (Tables 11 through 14) presents overall case counts and rates by selected demographic characteristics for 1999. In the third section, TB case counts and case rates are presented by state with tables of selected demographic and clinical characteristics. In the fourth section, data collected as part of the expanded system (e.g., initial drug resistance, HIV status) are presented by reporting area. The fifth section provides TB case counts and case rates by metropolitan statistical areas (MSAs: see Technical Notes, Appendix A, for further details) with tables of selected demographic and clinical characteristics. Finally, the sixth section is a revision of the collection of figures presented in previous years. This year, figures from the annual surveillance slide set, which emphasize key recent trends in TB epidemiology in the United States, are included. The slides with accompanying text can also be viewed and downloaded from the Division Home Page which is accessible via the Internet: www.cdc.gov/nchstp/tb.

To help interpret the data, an Executive Commentary (page 2) and Technical Notes (Appendix A) have been included. In addition, the current case definition (*MMWR* 1997;46 [No. RR-10]:40-1) and "Recommendations for Counting Reported Tuberculosis Cases" are provided in Appendices B and C, respectively. The recommendations for counting TB cases, which update the January 1977 recommendations, were first published in *Reported Tuberculosis in the United States, 1996*.

We will continue to adapt and improve this publication to better monitor trends in TB in the United States. Your comments and suggestions that may assist us in this process will be greatly appreciated.

Executive Commentary

During 1999, a total of 17,531 TB cases (6.4 cases per 100,000 population) were reported to CDC from the 50 states and the District of Columbia, representing a 5% decrease from 1998 and a 34% decrease from 1992, when the number of cases peaked during the resurgence of TB in the United States. The national TB case rate also steadily decreased during this period (Table 1). In 1999, 6% of cases were reported in children under 15 years old, 9% in persons aged 15-24 years, 35% in persons aged 25-44 years, 28% in persons aged 45-64 years, and 23% in persons aged 65 years and older (Table 2). During 1992-1999, there was a decline in both the number of cases reported in each of these age groups and the respective TB case rates.

An important consideration is that the overall national trends reflect the impact of varying changes within population subgroups. For example, the overall decrease in TB cases during 1992-1999 primarily reflected a 49% decrease in the number of cases among U.S.-born persons, with substantial declines in all age groups. In contrast, the total number of cases among foreign-born persons increased 4% during this period, reflecting a small increase among adults aged 25-44 years, a larger increase among adults aged 45 years, and a substantial decline among children aged <15 years. In terms of case rates, there was a 51% decrease in the case rate among U.S.-born persons (from 8.2 to 4.0 per 100,000), and there was a 15% decrease in the case rate among foreign-born persons (from 34.5 to 29.2 per 100,000), (Table 4).

The overall trends also reflect the impact of changes by geographic location. For example, during 1992-1999, the seven states (California, Florida, Georgia, Illinois, New Jersey, New York, and Texas) reporting the highest number of cases (59% of the total number of U.S. cases in 1999) experienced a substantial decrease in both the annual number of reported cases and case rate. Overall substantial decreases also occurred in 15 other states during the 8 year period. In the remaining 28 states and the District of Columbia, annual case counts fluctuated (e.g. an increase followed by a decrease) or remained relatively stable during 1992-1999. A majority of these (19 states) had case rates below 3.5 per 100,000 (15 states) or reported less than 100 cases (17 states) in 1999.

The resurgence of TB in the United States in the late 1980s and early 1990s was associated with the emergence of multidrug-resistant TB (MDR TB) and the HIV/AIDS epidemic.^{1,2} Based on initial drug susceptibility test results for isolates from persons with culture-positive TB, resistance to at least isoniazid during 1993-1999 was relatively stable and MDR TB decreased substantially. In 1999, 8% of isolates were resistant to at least isoniazid and 1% were resistant to at least isoniazid and rifampin (MDR TB) (Table 30). The decrease in the level of MDR TB was influenced by a substantial decrease in New York City; however, during 1993-1999, the proportion of MDR TB cases reported from U.S. areas excluding New York City decreased from 1.7% to 1%. Trends in primary resistance, based on results for isolates from persons with no prior history of TB, were similar (Table 7).

Incomplete reporting has limited the analysis of national TB surveillance data by HIV status. Reporting of HIV status has improved slowly since 1993, the year such information was first included on TB case reports submitted to CDC. In 1999, 57% of TB case reports for persons aged 25-44 years included information about HIV status. Twenty-three states, New York City, and the District of Columbia reported this information for at least 75% of cases among persons in this age group (Table 31). To help estimate the proportion of reported TB cases with HIV coinfection, state health departments have compared TB and AIDS registries.³ Using registry match data to supplement reported HIV test results on the individual TB case report, minimum estimates of the proportion with HIV coinfection range from 15% in 1993-1994 to 10% in 1998 for persons of all ages reported with TB and from 29% in 1993-1994 to 20% in 1998 for persons aged 25 to 44 (Table 10). The impact of the HIV/AIDS epidemic also differs by geographic

location. For example, in 1999, over one-third of TB cases in persons aged 25-44 years reported from the District of Columbia, Florida, Georgia, New York City, and South Carolina were coinfecting with HIV, whereas (among states with more than 5 cases in this age group), <10% of cases from Arkansas, Colorado, Mississippi, South Dakota, and Wisconsin were reported with HIV coinfection.

During 1992-1999, the declines in the overall number of reported TB cases and in the level of MDR TB appear to reflect successful efforts to strengthen TB control following the resurgence of TB and the emergence of MDR TB. Emphasizing the first priority of TB control⁴ (i.e., promptly identifying persons with TB, initiating appropriate therapy, and ensuring completion of therapy) has likely been the most important factor in achieving this improvement, through the reduction of community transmission of *M. tuberculosis*, particularly in areas with a high incidence of AIDS.⁵

Improvements in infection control practices in nosocomial and other congregate settings, declining AIDS incidence, and the decreasing number of MDR TB cases also appear to have contributed to the overall decrease; however, the contribution of these factors has been difficult to measure. The substantial decline in both the number of reported cases among U.S.-born persons and the case rate for U.S.-born persons supports these inferences. In comparison, the relatively stable number of reported cases among foreign-born persons along with the modest decline in the case rate among foreign-born persons is consistent with other analyses of TB surveillance data that indicate that most cases of TB among foreign-born persons residing in the United States result from infection with *M. tuberculosis* in the person's country of birth.⁶ As the percentage of reported TB cases among foreign-born persons continues to increase, the elimination of TB in the United States will depend increasingly on the elimination of TB among foreign-born persons.⁷ CDC, in collaboration with state and local health departments, has published recommendations for enhancing TB control efforts in the foreign-born,⁷ and is currently working with these jurisdictions to expand efforts based on these recommendations.

To move from TB control to TB elimination in the United States, the Advisory Council for the Elimination of Tuberculosis has emphasized that existing efforts must be sustained and enhanced.⁸ The recent report from the Institute of Medicine, *Ending Neglect: The Elimination of Tuberculosis in the United States*, highlights the important question that now confronts the nation, "whether another cycle of neglect will be allowed to begin, or whether, instead, decisive action will be taken to eliminate the disease."⁹ The expanded national TB surveillance system has proven its usefulness in assisting in the evaluation of the success of TB control efforts and monitoring the status of the epidemic, particularly through the collection of data on initial drug susceptibility results.¹⁰ Information on the use of initial regimens of four first-line drugs, directly observed therapy, and completion of therapy in 1 year or less (Table 9) provides additional evidence to use in evaluating program success. As future efforts accelerate towards TB elimination, maintaining and adapting surveillance systems at the national, state, and local levels will remain critical to monitoring the burden and impact of TB, evaluating success of control and prevention efforts, and directing policy and planning development.

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Table 1. Tuberculosis Cases and Case Rates per 100,000 Population, Deaths and Death Rates per 100,000 Population: United States, 1953-1999

Year	Tuberculosis Cases				Tuberculosis Deaths			
	Number	Rate ¹	Percent Change		Number	Rate ¹	Percent Change	
			Number	Rate			Number	Rate
1953	84,304	53.0	--	--	19,707	12.4	--	--
1954	79,775	49.3	-5.4	- 7.0	16,527	10.2	-16.1	-17.7
1955	77,368	46.9	-3.0	- 4.9	15,016	9.1	- 9.1	-10.8
1956	69,895	41.6	-9.7	-11.0	14,137	8.4	- 5.9	- 7.7
1957	67,149	39.2	-3.9	- 5.8	13,390	7.8	- 5.3	- 7.1
1958	63,534	36.5	-5.4	- 6.9	12,417	7.1	- 7.3	- 9.0
1959	57,535	32.5	-9.4	-11.0	11,474	6.5	- 7.6	- 8.5
1960	55,494	30.8	-3.5	- 5.2	10,866	6.0	- 5.3	- 7.7
1961	53,726	29.4	-3.2	- 4.5	9,938	5.4	- 8.5	-10.0
1962	53,315	28.7	-0.8	- 2.4	9,506	5.1	- 4.3	- 5.6
1963	54,042	28.7	+1.4	0.0	9,311	4.9	- 2.1	- 3.9
1964	50,874	26.6	-5.9	- 7.3	8,303	4.3	-10.8	-12.2
1965	49,016	25.3	-3.7	- 4.9	7,934	4.1	- 4.4	- 4.7
1966	47,767	24.4	-2.5	- 3.6	7,625	3.9	- 3.9	- 4.9
1967	45,647	23.1	-4.4	- 5.3	6,901	3.5	- 9.5	-10.3
1968	42,623	21.3	-6.6	- 7.8	6,292	3.1	- 8.8	-11.4
1969	39,120	19.4	-8.2	- 8.9	5,567	2.8	-11.5	- 9.7
1970	37,137	18.3	-5.1	- 5.7	5,217	2.6	- 6.3	- 7.1
1971	35,217	17.1	-5.2	- 6.6	4,501	2.2	-13.7	-15.4
1972	32,882	15.8	-6.6	- 7.6	4,376	2.1	- 2.8	- 4.5
1973	30,998	14.8	-5.7	- 6.3	3,875	1.8	-11.4	-14.5
1974	30,122	14.2	-2.8	- 4.1	3,513	1.7	- 9.3	- 5.6
1975	33,989	15.9	--	--	3,333	1.6	- 5.1	- 5.9
1976	32,105	15.0	-5.5	- 5.7	3,130	1.5	- 6.1	- 6.3
1977	30,145	13.9	-6.1	- 7.3	2,968	1.4	- 5.2	- 6.7
1978	28,521	13.1	-5.4	- 5.8	2,914	1.3	- 1.8	- 7.1
1979	27,669	12.6	-3.0	- 3.8	2,007 ²	0.9 ²	-31.1 ²	-30.8 ²
1980	27,749	12.3	+0.3	- 2.4	1,978	0.9	- 1.4	0.0
1981	27,373	11.9	-1.4	- 3.3	1,937	0.8	- 2.1	-11.1
1982	25,520	11.0	-6.8	- 7.6	1,807	0.8	- 6.7	0.0
1983	23,846	10.2	-6.6	- 7.3	1,779	0.8	- 1.5	0.0
1984	22,255	9.4	-6.7	- 7.8	1,729	0.7	- 2.8	-12.5
1985	22,201	9.3	-0.2	- 1.1	1,752	0.7	+ 1.3	0.0
1986	22,768	9.4	+2.6	+ 1.1	1,782	0.7	+ 1.7	0.0
1987	22,517	9.3	-1.1	- 1.1	1,755	0.7	- 1.5	0.0
1988	22,436	9.1	-0.4	- 2.2	1,921	0.8	+ 9.5	+14.3
1989	23,495	9.5	+4.7	+ 4.4	1,970	0.8	+ 2.6	0.0
1990	25,701	10.3	+9.4	+ 8.4	1,810	0.7	- 8.1	-12.5
1991	26,283	10.4	+2.3	+ 1.0	1,713	0.7	- 5.4	0.0
1992	26,673	10.5	+1.5	+ 1.0	1,705	0.7	- 0.5	0.0
1993	25,287	9.8	-5.2	- 6.7	1,631	0.6	- 4.3	-14.3
1994	24,361	9.4	-3.7	- 4.1	1,478	0.6	- 9.4	0.0
1995	22,860	8.7	-6.2	- 7.4	1,336	0.5	- 9.6	-16.7
1996	21,337	8.0	-6.7	+ 8.0	1,202	0.5	-10.0	0.0
1997	19,851	7.4	-7.0	- 7.5	1,166	0.4	- 3.0	-20.0
1998	18,361	6.8	-7.5	- 8.1	1,110 ³	0.4 ³	-4.8 ³	0.0 ³
1999	17,531	6.4	-4.5	- 5.9	...	...	...	...

1. Per 100,000 population.

2. The large decrease in 1979 occurred because late effects of tuberculosis (e.g., bronchiectasis or fibrosis) and pleurisy with effusion (without mention of cause) are no longer included in tuberculosis deaths.

3. Preliminary data obtained from National Center for Health Statistics (NCHS) *National Vital Statistics Reports*, Vol. 47, No. 25, October 5, 1999.

Ellipses indicate data not available.

Note: Case data after 1974 are not comparable to prior years due to changes in the surveillance case definitions which became effective in 1975.

See Surveillance Slide #2.

**Table 2. Tuberculosis Cases and Case Rates per 100,000 Population by Age Group:
United States, 1989-1999**

Year	Total Cases	0 -14			15 - 24			25 - 44			45 - 64			65+			Not Stated	
		No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)
1989	23,495	1,321	(6)	2.5	1,742	(7)	4.8	8,549	(36)	10.6	5,777	(25)	12.4	6,096	(26)	19.7	10	(0)
1990	25,701	1,596	(6)	3.0	1,867	(7)	5.1	9,730	(38)	12.0	6,365	(25)	13.7	6,115	(24)	19.6	28	(0)
1991	26,283	1,662	(6)	3.0	1,971	(7)	5.4	10,263	(39)	12.5	6,297	(24)	13.5	6,068	(23)	19.1	22	(0)
1992	26,673	1,707	(6)	3.1	1,974	(7)	5.5	10,444	(39)	12.7	6,487	(24)	13.4	6,025	(23)	18.7	36	(0)
1993	25,287	1,718	(7)	3.0	1,841	(7)	5.1	9,615	(38)	11.6	6,225	(25)	12.5	5,847	(23)	17.8	41	(0)
1994	24,361	1,695	(7)	3.0	1,825	(7)	5.1	9,106	(37)	11.0	6,141	(25)	12.1	5,546	(23)	16.7	48	(0)
1995	22,860	1,558	(7)	2.7	1,703	(7)	4.7	8,241	(36)	9.9	5,998	(26)	11.5	5,351	(23)	16.0	9	(0)
1996	21,337	1,372	(6)	2.4	1,656	(8)	4.6	7,604	(36)	9.1	5,588	(26)	10.4	5,103	(24)	15.1	14	(0)
1997	19,851	1,265	(6)	2.2	1,681	(8)	4.6	6,912	(35)	8.3	5,297	(27)	9.6	4,691	(24)	13.8	5	(0)
1998	18,361	1,082	(6)	1.9	1,548	(8)	4.2	6,365	(35)	7.6	4,973	(27)	8.7	4,393	(24)	12.8	0	(0)
1999	17,531	1,044	(6)	1.8	1,516	(9)	4.0	6,078	(35)	7.3	4,862	(28)	8.2	4,028	(23)	11.7	3	(0)

Note: Denominators for computing rates were based on official post-census estimates from the U.S. Census Bureau.
See Technical Notes (Appendix A).
See Surveillance Slide #5.

**Table 3. Tuberculosis Cases and Case Rates per 100,000 Population by Race/Ethnicity:
United States, 1989-1999**

Year	Total Cases	White, non-Hispanic			Black, non-Hispanic			Hispanic ¹			American Indian/ Alaskan Native			Asian/ Pacific Islander			Unknown/ Missing	
		No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)	Rate	No.	(%)
1989	23,495	7,638	(33)	4.0	8,743	(37)	29.5	3,958	(17)	19.3	344	(1)	19.8	2,738	(12)	39.8	74	(0)
1990	25,701	7,836	(30)	4.2	9,634	(37)	33.0	4,809	(19)	21.5	361	(1)	20.1	3,004	(12)	43.1	57	(0)
1991	26,283	7,709	(29)	4.1	9,536	(36)	31.9	5,354	(20)	22.9	342	(1)	18.5	3,324	(13)	44.3	18	(0)
1992	26,673	7,618	(29)	4.0	9,623	(36)	31.7	5,437	(20)	22.4	299	(1)	16.2	3,649	(14)	46.3	47	(0)
1993	25,287	6,922	(27)	3.6	8,951	(35)	29.1	5,194	(21)	20.6	274	(1)	14.6	3,680	(15)	44.5	266	(1)
1994	24,361	6,494	(27)	3.4	8,345	(34)	26.8	5,074	(21)	19.5	332	(1)	17.4	3,821	(16)	45.3	295	(1)
1995	22,860	5,989	(26)	3.1	7,555	(33)	23.9	4,847	(21)	18.0	319	(1)	16.5	3,997	(17)	45.9	153	(1)
1996	21,337	5,506	(26)	2.8	7,106	(33)	22.3	4,533	(21)	16.0	284	(1)	14.5	3,814	(18)	41.6	94	(0)
1997	19,851	4,872	(25)	2.5	6,610	(33)	20.5	4,228	(21)	14.4	264	(1)	13.4	3,833	(19)	40.6	44	(0)
1998	18,361	4,495	(24)	2.3	5,831	(32)	17.8	4,099	(22)	13.6	253	(1)	12.6	3,623	(20)	36.6	60	(0)
1999	17,531	4,224	(24)	2.2	5,552	(32)	16.8	3,875	(22)	12.4	240	(1)	11.8	3,591	(20)	35.3	49	(0)

1. Persons of Hispanic origin may be of any race.

Note: Denominators for computing rates were based on official post-census estimates from the U.S. Census Bureau.
See Technical Notes (Appendix A).
See Surveillance Slide #7.

Table 4. Tuberculosis Cases and Case Rates per 100,000 Population by Origin: United States, 1989-1999

Year	Total Cases	U.S.-born Persons			Foreign-born Persons ¹			Unknown	
		No.	%	Rate	No.	%	Rate	No.	%
1989	23,495	17,646	75	...	5,411	23	...	438	2
1990	25,701	18,997	74	8.3	6,262	24	31.2	442	2
1991	26,283	19,161	73	8.2	6,982	27	33.9	140	1
1992	26,673	19,225	72	8.2	7,270	27	34.2	178	1
1993	25,287	17,464	75	7.4	7,354	29	33.6	469	2
1994	24,361	16,278	67	6.8	7,627	31	33.9	456	2
1995	22,860	14,772	65	6.1	7,930	35	34.2	158	1
1996	21,337	13,333	62	5.5	7,704	36	32.3	300	1
1997	19,851	11,898	60	4.9	7,702	39	31.2	251	1
1998	18,361	10,675	58	4.3	7,591	41	30.0	95	1
1999	17,531	9,809	56	4.0	7,553	43	29.2	169	1

1. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands. Ellipses indicate data not available.

Note: Denominators for computing rates were obtained from *Quarterly Estimates of the United States Foreign-born and Native Resident Populations: April 1, 1990, to July 1, 1999*

(www.census.gov/population/estimates/nation/nativity/fbtab001.txt).

See Surveillance Slides #9 and #12.

Table 5. Tuberculosis Cases by Case Verification Criterion and by Site of Disease: United States, 1989-1999

Year	Total Cases	Verification Criterion ¹								Site of Disease			
		Positive Culture		Positive Smear		Clinical Case Definition		Provider Diagnosis		Pulmonary ²		Extra-pulmonary	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1989	23,495	19,483	83	351	1	2,475	11	1,186	5	19,639	84	3,835	16
1990	25,701	20,897	81	556	2	2,958	12	1,290	5	21,576	84	4,091	16
1991	26,283	21,417	81	388	1	2,992	11	1,486	6	21,937	83	4,327	16
1992	26,673	21,398	80	407	2	3,141	12	1,727	6	22,371	84	4,288	16
1993	25,287	20,081	79	309	1	2,994	12	1,903	8	21,255	84	3,995	16
1994	24,361	19,537	80	236	1	2,794	11	1,794	7	20,385	84	3,964	16
1995	22,860	18,292	80	220	1	2,664	12	1,684	7	18,991	83	3,860	17
1996	21,337	17,234	81	150	1	2,556	12	1,397	7	17,445	82	3,870	18
1997	19,851	16,015	81	177	1	2,355	12	1,304	7	16,285	82	3,554	18
1998	18,361	14,830	81	166	1	2,207	12	1,158	6	14,813	81	3,541	19
1999	17,531	13,997	80	176	1	2,058	12	1,300	7	14,083	80	3,438	20

1. Based on the public health surveillance case definition for tuberculosis: CDC. Case definitions for infectious conditions under public health surveillance. MMWR 1997;46(No. RR-10):40-41. See Appendix B.

2. Includes cases of both pulmonary and extrapulmonary disease and cases of miliary TB.

Note: See Technical Notes (Appendix A) for a description of national TB surveillance.

Table 6. Pulmonary Tuberculosis Cases by Sputum Smear and Sputum Culture Results: United States, 1989-1999

Year	Total Pulmonary Cases ¹	Sputum Smear Results						Sputum Culture Results					
		Positive		Negative		Not Done or Unknown		Positive		Negative		Not Done or Unknown	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)	No.	(%)
1989	19,639	8,759	(45)	5,924	(30)	4,956	(25)	13,712	(70)	1,908	(10)	4,019	(20)
1990	21,576	9,391	(44)	6,865	(32)	5,320	(25)	14,816	(69)	2,124	(10)	4,636	(21)
1991	21,937	9,095	(41)	7,281	(33)	5,561	(25)	15,022	(68)	2,232	(10)	4,683	(21)
1992	22,371	8,975	(40)	7,413	(33)	5,983	(27)	15,124	(68)	2,476	(11)	4,771	(21)
1993	21,255	9,324	(44)	7,747	(36)	4,184	(20)	14,708	(69)	2,675	(13)	3,872	(18)
1994	20,385	8,845	(43)	7,770	(38)	3,770	(18)	14,080	(69)	2,618	(13)	3,687	(18)
1995	18,991	8,068	(42)	7,717	(41)	3,206	(17)	13,236	(70)	2,597	(14)	3,158	(17)
1996	17,445	7,449	(43)	7,337	(42)	2,659	(15)	12,232	(70)	2,507	(14)	2,706	(16)
1997	16,285	6,882	(42)	6,878	(42)	2,525	(16)	11,481	(71)	2,226	(14)	2,578	(16)
1998	14,813	6,630	(45)	6,016	(41)	2,167	(15)	10,472	(71)	2,101	(14)	2,240	(15)
1999	14,083	6,252	(44)	5,626	(40)	2,205	(16)	9,777	(69)	2,049	(15)	2,257	(16)

1. Includes cases of both pulmonary and extrapulmonary disease and cases of miliary TB.

Table 7. Resistance to Isoniazid with or without Rifampin Resistance in Reported TB Cases with No Previous TB by Origin: United States, 1993-1999

Year	Resistant to Isoniazid ¹						Resistant to Isoniazid and Rifampin ¹					
	Total Cases ²		U. S.-born		Foreign-born ³		Total Cases ²		U. S.-born		Foreign-born ³	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1993	1,400	8.4	804	6.8	579	12.4	410	2.5	302	2.6	105	2.3
1994	1,355	8.3	709	6.5	632	12.1	352	2.2	238	2.2	109	2.1
1995	1,171	7.3	554	5.4	615	11.0	252	1.6	168	1.6	84	1.5
1996	1,134	7.4	492	5.2	638	11.3	205	1.3	103	1.1	101	1.8
1997	1,076	7.5	429	5.0	640	11.3	157	1.1	75	0.9	81	1.4
1998	1,012	7.6	366	4.8	644	11.4	127	1.0	52	0.7	74	1.3
1999	865	7.2	271	4.1	590	11.1	127	1.1	38	0.6	88	1.7

1. Isolates may be resistant to other drugs.

2. Includes persons of unknown country of birth.

3. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.

Note: Data for all years updated through May 3, 2000.

More than 85% of all cases in each group had drug susceptibility test results reported for an initial isolate.

See Surveillance Slides #14 and #15.

Table 8. Resistance to Isoniazid with or without Rifampin Resistance in Reported TB Cases with Previous TB by Origin: United States, 1993-1999

Year	Resistant to Isoniazid ¹						Resistant to Isoniazid and Rifampin ¹					
	Total Cases ²		U. S.-born		Foreign-born ³		Total Cases ²		U. S.-born		Foreign-born ³	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1993	164	16.6	85	12.6	76	25.2	75	7.6	30	4.5	45	15.0
1994	177	17.1	81	11.7	95	28.1	75	7.3	35	5.1	39	11.6
1995	168	17.6	77	13.0	91	25.1	70	7.3	28	4.7	42	11.6
1996	141	16.4	67	12.0	73	24.2	42	4.9	20	3.6	21	7.0
1997	108	14.9	35	8.0	73	25.6	42	5.8	11	2.5	31	10.9
1998	97	12.8	37	7.5	60	22.6	23	3.0	6	1.2	17	6.4
1999	80	12.2	27	7.2	51	18.3	25	3.8	6	1.6	19	6.8

1. Isolates may be resistant to other drugs.

2. Includes persons of unknown country of birth.

3. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.

Note: Data for all years updated through May 3, 2000.

More than 85% of all cases in each group had drug susceptibility test results reported for an initial isolate.

Table 9. Percentage of Reported TB Cases by Initial Drug Regimen, Use of Directly Observed Therapy, and Completion of Therapy (COT): United States, 1993-1999

Year	Initial Drug Regimen ¹			Directly Observed Therapy ³		Therapy ≤1 Year Indicated ⁴	
	IR	IRZ	IRZ,E/S ²	DOT Only	Self-Administered	COT <1 Year	COT
1993	13.0	31.2	40.9	21.7	14.4	63.5	87.5
1994	7.0	23.3	56.3	28.1	20.5	68.4	87.8
1995	5.2	20.3	63.4	37.2	21.4	72.8	89.5
1996	4.1	17.5	67.9	42.4	22.4	75.5	90.2
1997	3.2	15.1	72.4	46.9	23.7	77.2	90.0
1998	2.6	12.9	74.6	...	...	...	...
1999	2.2	11.2	76.8	...	...	...	...

1. Includes cases in persons alive at diagnosis.

2. I=isoniazid; R=rifampin; Z=pyrazinamide; E=ethambutol; S=streptomycin. Excluding cases with no information on initial drug regimen, 1% were not started on any drugs, less than 1% were started on one drug, and approximately 10% had an initial multidrug regimen other than IR, IRZ, and IRZ,E/S.

3. Includes cases in persons alive at diagnosis with initial drug regimen of one or more drugs prescribed.

4. Includes cases in persons alive at diagnosis, with initial drug regimen of one or more drugs prescribed, who did not die during therapy. Excludes persons with initial isolate resistant to rifampin and pediatric (aged <15) cases with meningeal, bone or joint, or miliary disease. See Technical Notes (Appendix A) for description of COT calculation.

Ellipses indicate data not available.

Note: Data for all years updated through May 3, 2000.

See Surveillance Slides #17 and #18.

Table 10. Number and Percentage of Reported TB Cases with HIV Test Results and with HIV Coinfection by Age Group: United States, 1993-1998

Year	25-44 Years Old				All Ages			
	HIV Test Results ¹		HIV Positive ²		HIV Test Results ¹		HIV Positive ²	
	No.	%	No.	%	No.	%	No.	%
1993	4,372	46	2,786	29	7,447	30	3,678	15
1994	4,432	49	2,659	29	7,869	33	3,588	15
1995	4,266	52	2,167	26	8,168	36	3,031	13
1996	4,328	57	1,856	25	8,757	41	2,615	12
1997	4,106	60	1,466	21	8,715	44	2,084	11
1998	3,837	60	1,239	20	8,229	45	1,824	10

1. Rhode Island reported HIV test results during 1998. HIV test results were not reported from California. California did provide HIV status for TB cases reported during 1993-1998 in persons also reported with AIDS (i.e., HIV-positive).

Includes cases with positive, negative, or indeterminate HIV test results and California cases also reported with AIDS.

Percentages based on all reported TB cases.

2. Includes cases with HIV-positive test results and California cases also reported with AIDS. Percentages based on all reported TB cases.

Note: Data for all years updated through May 3, 2000.

See Surveillance Slide #16.

Table 11. Tuberculosis Cases by Race/Ethnicity, Sex, and Age: United States, 1999

Race/Ethnicity and Sex	All Ages	Age Group						Not Stated
		Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+	
Total Cases	17,531	605	439	1,516	6,078	4,862	4,028	3
White, non-Hispanic	4,224	76	52	117	1,020	1,263	1,694	2
Male	2,819	40	21	63	695	974	1,024	2
Female	1,405	36	31	54	325	289	670	0
Unknown	0	0	0	0	0	0	0	0
Black, non-Hispanic	5,552	195	151	432	2,198	1,688	888	0
Male	3,488	92	70	220	1,387	1,231	488	0
Female	2,063	103	81	212	811	456	400	0
Unknown	1	0	0	0	0	1	0	0
Hispanic ¹	3,875	250	181	569	1,462	870	543	0
Male	2,496	141	103	364	1,004	581	303	0
Female	1,379	109	78	205	458	289	240	0
Unknown	0	0	0	0	0	0	0	0
American Indian/Alaskan Native	240	12	5	10	72	83	57	1
Male	147	7	2	2	51	48	36	1
Female	93	5	3	8	21	35	21	0
Unknown	0	0	0	0	0	0	0	0
Asian/Pacific Islander	3,591	70	49	385	1,307	947	833	0
Male	1,966	37	26	177	667	535	524	0
Female	1,625	33	23	208	640	412	309	0
Unknown	0	0	0	0	0	0	0	0
Not Stated	49	2	1	3	19	11	13	0
Male	32	2	1	1	11	10	7	0
Female	17	0	0	2	8	1	6	0
Unknown	0	0	0	0	0	0	0	0

1. Persons of Hispanic origin may be of any race.
See Surveillance Slide #7.

Table 12. Tuberculosis Case Rates per 100,000 Population by Race/Ethnicity, Sex, and Age: United States, 1999

Race/Ethnicity and Sex	All Ages	Age Group					
		Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+
Total Cases	6.4	3.2	1.1	4.0	7.3	8.2	11.7
White, non-Hispanic	2.2	0.6	0.2	0.5	1.7	2.7	5.8
Male	2.9	0.7	0.2	0.5	2.4	4.3	8.5
Female	1.4	0.6	0.2	0.4	1.1	1.2	4.0
Black, non-Hispanic	16.8	7.5	2.6	7.9	21.2	28.1	31.9
Male	22.3	7.0	2.3	8.1	28.5	46.1	44.6
Female	11.8	8.0	2.8	7.8	14.8	13.7	23.6
Hispanic ¹	12.4	7.2	3.0	10.4	14.7	18.9	29.4
Male	15.8	8.0	3.4	12.8	19.6	26.4	39.0
Female	8.9	6.4	2.7	7.8	9.4	12.1	22.5
American Indian/Alaskan Native	11.8	7.3	1.3	2.8	11.8	23.3	38.8
Male	14.8	8.4	1.0	1.1	16.7	28.2	58.1
Female	9.0	6.2	1.6	4.5	6.9	18.7	24.7
Asian/Pacific Islander	35.3	8.4	3.1	26.0	37.5	46.5	108.2
Male	40.3	8.7	3.2	23.9	40.8	56.4	161.7
Female	30.6	8.0	3.0	28.1	34.5	37.9	69.3

1. Persons of Hispanic origin may be of any race.

Note: Denominators for computing rates were obtained from *National Population Estimates for the 1990's: Monthly Postcensal Resident Population, by Single Year of Age, Sex, Race, and Hispanic Origin* (www.census.gov/population/estimates/nation/e90s/e9999rmp.txt).

See Surveillance Slide #8.

Table 13. Tuberculosis Cases in U.S.-born Persons by Race/Ethnicity, Sex, and Age: United States, 1999

Race/Ethnicity and Sex	All Ages	Age Group						Not Stated
		Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+	
Total Cases	9,809	508	259	453	2,939	3,021	2,626	3
White, non-Hispanic	3,637	65	38	68	841	1,116	1,507	2
Male	2,490	33	17	35	597	875	931	2
Female	1,147	32	21	33	244	241	576	0
Unknown	0	0	0	0	0	0	0	0
Black, non-Hispanic	4,593	183	106	238	1,692	1,529	845	0
Male	2,943	87	52	124	1,077	1,135	468	0
Female	1,649	96	54	114	615	393	377	0
Unknown	1	0	0	0	0	1	0	0
Hispanic ¹	1,127	202	94	101	292	267	171	0
Male	697	118	54	59	185	188	93	0
Female	430	84	40	42	107	79	78	0
Unknown	0	0	0	0	0	0	0	0
American Indian/Alaskan Native	234	12	4	9	70	83	55	1
Male	144	7	2	2	50	48	34	1
Female	90	5	2	7	20	35	21	0
Unknown	0	0	0	0	0	0	0	0
Asian/Pacific Islander	202	45	17	36	39	23	42	0
Male	104	23	11	13	18	10	29	0
Female	98	22	6	23	21	13	13	0
Unknown	0	0	0	0	0	0	0	0
Not Stated	16	1	0	1	5	3	6	0
Male	12	1	0	1	3	3	4	0
Female	4	0	0	0	2	0	2	0
Unknown	0	0	0	0	0	0	0	0

1. Persons of Hispanic origin may be of any race.

Table 14. Tuberculosis Cases in Foreign-born Persons¹ by Race/Ethnicity, Sex, and Age: United States, 1999

Race/Ethnicity and Sex	All Ages	Age Group						Not Stated
		Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+	
Total Cases	7,553	92	173	1,051	3,082	1,800	1,355	0
White, non-Hispanic	560	11	14	49	174	139	173	0
Male	310	7	4	28	94	92	85	0
Female	250	4	10	21	80	47	88	0
Unknown	0	0	0	0	0	0	0	0
Black, non-Hispanic	916	11	42	192	485	150	36	0
Male	519	5	16	94	297	88	19	0
Female	397	6	26	98	188	62	17	0
Unknown	0	0	0	0	0	0	0	0
Hispanic ²	2,704	47	84	462	1,157	594	360	0
Male	1,766	22	49	301	806	386	202	0
Female	938	25	35	161	351	208	158	0
Unknown	0	0	0	0	0	0	0	0
American Indian/Alaskan Native	6	0	1	1	2	0	2	0
Male	3	0	0	0	1	0	2	0
Female	3	0	1	1	1	0	0	0
Unknown	0	0	0	0	0	0	0	0
Asian/Pacific Islander	3,355	22	31	347	1,259	915	781	0
Male	1,847	13	15	162	647	519	491	0
Female	1,508	9	16	185	612	396	290	0
Unknown	0	0	0	0	0	0	0	0
Not Stated	12	1	1	0	5	2	3	0
Male	7	1	1	0	2	2	1	0
Female	5	0	0	0	3	0	2	0
Unknown	0	0	0	0	0	0	0	0

1. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.

2. Persons of Hispanic origin may be of any race.

Table 15. Tuberculosis Cases and Case Rates per 100,000 Population: States, 1999 and 1998

State	Cases		Case Rates		Rank According to Rate		Population Estimates July 1, 1999
	1999	1998	1999	1998	1999	1998	
United States	17,531	18,361	6.4	6.8	--	--	272,691,000
Alabama	314	381	7.2	8.8	11	6	4,369,000
Alaska	61	55	9.9	9.0	4	5	619,000
Arizona	262	254	5.5	5.4	19	21	4,778,000
Arkansas	181	171	7.1	6.7	12	16	2,551,000
California	3,606	3,852	10.9	11.8	2	2	33,145,000
Colorado	88	79	2.2	2.0	39	42	4,056,000
Connecticut	121	128	3.7	3.9	31	30	3,282,000
Delaware	34	36	4.5	4.8	24	23	754,000
District of Columbia ¹	70	107	13.5	20.5	--	--	519,000
Florida	1,277	1,302	8.5	8.7	6	7	15,111,000
Georgia	665	631	8.5	8.3	5	9	7,788,000
Hawaii	184	181	15.5	15.2	1	1	1,185,000
Idaho	16	14	1.3	1.1	46	47	1,252,000
Illinois	825	850	6.8	7.1	15	15	12,128,000
Indiana	150	188	2.5	3.2	37	34	5,943,000
Iowa	58	55	2.0	1.9	41	43	2,869,000
Kansas	69	56	2.6	2.1	36	39	2,654,000
Kentucky	209	179	5.3	4.5	21	27	3,961,000
Louisiana	357	380	8.2	8.7	8	8	4,372,000
Maine	23	13	1.8	1.0	43	48	1,253,000
Maryland	294	324	5.7	6.3	18	19	5,172,000
Massachusetts	270	282	4.4	4.6	26	26	6,175,000
Michigan	351	385	3.6	3.9	33	28	9,864,000
Minnesota	201	161	4.2	3.4	27	32	4,776,000
Mississippi	215	225	7.8	8.2	10	10	2,769,000
Missouri	208	184	3.8	3.4	28	33	5,468,000
Montana	14	20	1.6	2.3	44	38	883,000
Nebraska	18	31	1.1	1.9	48	44	1,666,000
Nevada	93	128	5.1	7.3	22	14	1,809,000
New Hampshire	19	14	1.6	1.2	45	46	1,201,000
New Jersey	571	640	7.0	7.9	13	12	8,143,000
New Mexico	64	68	3.7	3.9	32	29	1,740,000
New York	1,837	2,000	10.1	11.0	3	3	18,197,000
North Carolina	488	498	6.4	6.6	16	17	7,651,000
North Dakota	7	10	1.1	1.6	47	45	634,000
Ohio	317	230	2.8	2.1	35	41	11,257,000
Oklahoma	208	198	6.2	5.9	17	20	3,358,000
Oregon	123	156	3.7	4.8	30	24	3,316,000
Pennsylvania	454	448	3.8	3.7	29	31	11,994,000
Rhode Island	53	63	5.3	6.4	20	18	991,000
South Carolina	315	286	8.1	7.5	9	13	3,886,000
South Dakota	21	23	2.9	3.1	34	35	733,000
Tennessee	382	439	7.0	8.1	14	11	5,484,000
Texas	1,649	1,820	8.2	9.2	7	4	20,044,000
Utah	40	52	1.9	2.5	42	36	2,130,000
Vermont	3	5	0.5	0.8	50	49	594,000
Virginia	334	339	4.9	5.0	23	22	6,873,000
Washington	258	265	4.5	4.7	25	25	5,756,000
West Virginia	41	42	2.3	2.3	38	37	1,807,000
Wisconsin	110	109	2.1	2.1	40	40	5,250,000
Wyoming	3	4	0.6	0.8	49	50	480,000
American Samoa ^{1, 2}	4	...	6.3	...	--	--	63,781
Fed. States of Micronesia ^{1, 2}	...	...	...	...	--	--	131,500
Guam ^{1, 2}	69	89	45.4	59.7	--	--	151,968
N. Mariana Islands ^{1, 2}	66	...	95.4	...	--	--	69,216
Puerto Rico ^{1, 2}	200	201	5.1	5.2	--	--	3,889,507
Republic of Palau ^{1, 2}	11	...	59.7	...	--	--	18,434
U.S. Virgin Islands ^{1, 2}	...	...	...	...	--	--	119,615

1. Not ranked with the states.

2. Not included in U.S. totals.

Ellipses indicate data not available.

Note: Denominators for computing 1999 rates were obtained from *State Population Estimates: Annual Time Series, July 1, 1990, to July 1, 1999*, ST-99-3 (www.census.gov/population/estimates/state/st-99-3.txt).

See Surveillance Slide #4.

Table 16. Tuberculosis Cases by Age Group: States, 1999

State	Total Cases	Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+	Unknown or Missing
United States	17,531	605	439	1,516	6,078	4,862	4,028	3
Alabama	314	8	1	13	80	102	110	0
Alaska	61	0	2	4	26	13	16	0
Arizona	262	7	2	26	99	59	69	0
Arkansas	181	13	9	8	32	47	72	0
California	3,606	153	116	334	1,161	975	867	0
Colorado	88	9	4	5	26	22	22	0
Connecticut	121	4	2	15	45	37	18	0
Delaware	34	0	2	0	15	6	11	0
District of Columbia	70	1	1	5	30	17	16	0
Florida	1,277	33	17	70	516	416	225	0
Georgia	665	38	22	67	251	191	96	0
Hawaii	184	0	4	19	46	57	58	0
Idaho	16	0	0	3	5	4	4	0
Illinois	825	26	22	57	295	242	183	0
Indiana	150	10	2	13	42	38	45	0
Iowa	58	2	1	3	30	9	13	0
Kansas	69	9	6	5	27	16	6	0
Kentucky	209	2	3	7	58	60	78	1
Louisiana	357	10	9	17	114	122	85	0
Maine	23	0	0	0	5	7	11	0
Maryland	294	8	6	32	109	71	68	0
Massachusetts	270	5	4	35	114	62	50	0
Michigan	351	14	10	22	112	99	94	0
Minnesota	201	4	15	59	67	38	18	0
Mississippi	215	12	7	12	45	62	77	0
Missouri	208	9	9	7	66	46	71	0
Montana	14	0	0	0	1	8	5	0
Nebraska	18	0	0	2	8	5	3	0
Nevada	93	3	2	8	25	36	17	2
New Hampshire	19	1	0	2	8	2	6	0
New Jersey	571	12	12	58	225	153	111	0
New Mexico	64	1	1	7	18	11	26	0
New York	1,837	43	49	163	814	476	292	0
North Carolina	488	15	5	51	165	139	113	0
North Dakota	7	0	0	1	0	3	3	0
Ohio	317	6	2	25	80	85	119	0
Oklahoma	208	14	7	20	70	54	43	0
Oregon	123	5	4	13	38	34	29	0
Pennsylvania	454	12	8	30	123	117	164	0
Rhode Island	53	3	4	7	11	15	13	0
South Carolina	315	7	6	19	107	101	75	0
South Dakota	21	0	1	1	6	8	5	0
Tennessee	382	16	4	21	118	102	121	0
Texas	1,649	67	42	158	594	494	294	0
Utah	40	1	2	3	10	13	11	0
Vermont	3	0	0	0	0	2	1	0
Virginia	334	9	4	40	114	79	88	0
Washington	258	9	6	37	82	71	53	0
West Virginia	41	0	0	0	3	17	21	0
Wisconsin	110	4	4	12	40	18	32	0
Wyoming	3	0	0	0	2	1	0	0
American Samoa ¹	4	0	0	1	0	2	1	0
Fed. States of Micronesia ¹	...	...	...	...	...	...	...	...
Guam ¹	69	0	1	4	21	36	7	0
N. Mariana Islands ¹	66	2	0	9	37	18	0	0
Puerto Rico ¹	200	3	1	14	67	68	47	0
Republic of Palau ¹	11	1	0	1	4	5	0	0
U.S. Virgin Islands ¹	...	...	...	...	...	...	...	...

1. Not included in U.S. totals.

Ellipses indicate data not available.

Table 17. Tuberculosis Cases by Race/Ethnicity: States, 1999

State	Total Cases	White, non-Hispanic	Black, non-Hispanic	Hispanic ¹	American Indian or Alaskan Native	Asian or Pacific Islander	Unknown or Missing
United States	17,531	4,224	5,552	3,875	240	3,591	49
Alabama	314	135	152	12	1	14	0
Alaska	61	5	0	2	41	13	0
Arizona	262	81	15	103	45	18	0
Arkansas	181	85	61	20	1	13	1
California	3,606	449	375	1,340	16	1,414	12
Colorado	88	26	13	29	1	19	0
Connecticut	121	26	35	30	0	30	0
Delaware	34	11	12	2	0	9	0
District of Columbia	70	6	53	7	0	4	0
Florida	1,277	374	620	209	1	72	1
Georgia	665	135	410	64	0	48	8
Hawaii	184	9	1	5	0	165	4
Idaho	16	8	0	4	3	1	0
Illinois	825	188	349	140	0	143	5
Indiana	150	75	40	20	1	14	0
Iowa	58	25	5	12	1	15	0
Kansas	69	17	10	28	0	14	0
Kentucky	209	150	38	13	0	8	0
Louisiana	357	126	201	9	1	18	2
Maine	23	16	2	0	0	5	0
Maryland	294	47	142	39	0	65	1
Massachusetts	270	75	74	35	0	86	0
Michigan	351	99	159	24	2	65	2
Minnesota	201	26	95	18	7	55	0
Mississippi	215	56	142	6	2	9	0
Missouri	208	81	92	8	2	24	1
Montana	14	6	0	0	8	0	0
Nebraska	18	7	2	4	1	4	0
Nevada	93	25	11	20	2	33	2
New Hampshire	19	11	1	1	0	5	1
New Jersey	571	96	196	130	0	149	0
New Mexico	64	8	0	31	24	1	0
New York	1,837	285	672	469	0	410	1
North Carolina	488	112	270	64	3	38	1
North Dakota	7	5	1	0	1	0	0
Ohio	317	131	136	19	1	29	1
Oklahoma	208	114	26	14	38	16	0
Oregon	123	44	9	26	3	41	0
Pennsylvania	454	171	137	30	0	111	5
Rhode Island	53	16	11	12	0	14	0
South Carolina	315	59	228	7	1	20	0
South Dakota	21	4	1	1	14	1	0
Tennessee	382	199	156	13	0	14	0
Texas	1,649	338	403	742	1	165	0
Utah	40	12	3	8	7	10	0
Vermont	3	2	0	0	0	1	0
Virginia	334	97	125	46	0	66	0
Washington	258	81	33	42	10	91	1
West Virginia	41	32	9	0	0	0	0
Wisconsin	110	37	26	15	1	31	0
Wyoming	3	1	0	2	0	0	0
American Samoa ²	4	0	0	0	0	4	0
Fed. States of Micronesia ²	...	...	...	...	...	...	...
Guam ²	69	0	0	0	0	64	5
N. Mariana Islands ²	66	0	0	1	0	63	2
Puerto Rico ²	200	0	0	199	0	0	1
Republic of Palau ²	11	0	0	0	0	11	0
U.S. Virgin Islands ²	...	...	...	...	...	...	...

1. Persons of Hispanic origin may be of any race.

2. Not included in U.S. totals.

Ellipses indicate data not available.

Table 18. Tuberculosis Cases, U.S.-born Persons and Foreign-born Persons: States, 1999

State	Total Cases	U.S.-born Persons		Foreign-born Persons ¹		Unknown	
		No.	%	No.	%	No.	%
United States	17,531	9,809	56.0	7,553	43.1	169	1.0
Alabama	314	287	91.4	26	8.3	1	0.3
Alaska	61	46	75.4	14	23.0	1	1.6
Arizona	262	154	58.8	107	40.8	1	0.4
Arkansas	181	159	87.8	16	8.8	6	3.3
California	3,606	1,074	29.8	2,503	69.4	29	0.8
Colorado	88	41	46.6	47	53.4	0	0.0
Connecticut	121	46	38.0	74	61.2	1	0.8
Delaware	34	20	58.8	14	41.2	0	0.0
District of Columbia	70	48	68.6	22	31.4	0	0.0
Florida	1,277	834	65.3	442	34.6	1	0.1
Georgia	665	520	78.2	136	20.5	9	1.4
Hawaii	184	46	25.0	137	74.5	1	0.5
Idaho	16	11	68.8	5	31.3	0	0.0
Illinois	825	547	66.3	264	32.0	14	1.7
Indiana	150	113	75.3	36	24.0	1	0.7
Iowa	58	20	34.5	38	65.5	0	0.0
Kansas	69	40	58.0	28	40.6	1	1.4
Kentucky	209	188	90.0	21	10.0	0	0.0
Louisiana	357	323	90.5	30	8.4	4	1.1
Maine	23	16	69.6	7	30.4	0	0.0
Maryland	294	140	47.6	154	52.4	0	0.0
Massachusetts	270	83	30.7	187	69.3	0	0.0
Michigan	351	251	71.5	99	28.2	1	0.3
Minnesota	201	46	22.9	155	77.1	0	0.0
Mississippi	215	202	94.0	13	6.0	0	0.0
Missouri	208	169	81.3	38	18.3	1	0.5
Montana	14	14	100.0	0	0.0	0	0.0
Nebraska	18	9	50.0	9	50.0	0	0.0
Nevada	93	40	43.0	52	55.9	1	1.1
New Hampshire	19	12	63.2	7	36.8	0	0.0
New Jersey	571	245	42.9	324	56.7	2	0.4
New Mexico	64	45	70.3	19	29.7	0	0.0
New York	1,837	774	42.1	988	53.8	75	4.1
North Carolina	488	386	79.1	101	20.7	1	0.2
North Dakota	7	6	85.7	1	14.3	0	0.0
Ohio	317	241	76.0	74	23.3	2	0.6
Oklahoma	208	176	84.6	32	15.4	0	0.0
Oregon	123	52	42.3	71	57.7	0	0.0
Pennsylvania	454	300	66.1	145	31.9	9	2.0
Rhode Island	53	26	49.1	27	50.9	0	0.0
South Carolina	315	292	92.7	23	7.3	0	0.0
South Dakota	21	17	81.0	4	19.0	0	0.0
Tennessee	382	341	89.3	41	10.7	0	0.0
Texas	1,649	994	60.3	648	39.3	7	0.4
Utah	40	21	52.5	19	47.5	0	0.0
Vermont	3	2	66.7	1	33.3	0	0.0
Virginia	334	179	53.6	155	46.4	0	0.0
Washington	258	108	41.9	150	58.1	0	0.0
West Virginia	41	41	100.0	0	0.0	0	0.0
Wisconsin	110	62	56.4	48	43.6	0	0.0
Wyoming	3	2	66.7	1	33.3	0	0.0

1. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.
See Surveillance Slide #10.

Table 19. Tuberculosis Cases in Foreign-born Persons¹ by Country of Origin: States, 1999

State	Total Cases	Country of Origin								Unknown or Missing
		Mexico	Philippines	Vietnam	India	Rep. Of China	Haiti	Rep. Of Korea	All Others ²	
United States	7,553	1,753	913	721	557	366	284	220	2,736	3
Alabama	26	5	2	3	3	0	0	2	11	0
Alaska	14	1	8	0	1	0	0	2	2	0
Arizona	107	67	9	3	5	0	0	0	23	0
Arkansas	16	5	0	3	1	1	0	0	6	0
California	2,503	820	487	346	90	142	2	81	533	2
Colorado	47	14	0	7	7	0	0	0	19	0
Connecticut	74	1	9	4	9	2	4	0	45	0
Delaware	14	2	2	0	1	0	2	0	7	0
District of Columbia	22	1	2	1	1	0	0	0	17	0
Florida	442	45	20	18	16	8	142	5	188	0
Georgia	136	32	2	17	13	3	0	4	65	0
Hawaii	137	1	103	4	0	8	0	9	12	0
Idaho	5	4	0	0	0	0	0	0	1	0
Illinois	264	81	33	10	49	8	1	14	68	0
Indiana	36	11	3	3	3	1	0	0	15	0
Iowa	38	9	1	6	4	0	0	1	17	0
Kansas	28	12	3	2	4	0	0	0	7	0
Kentucky	21	8	2	1	5	0	0	0	5	0
Louisiana	30	2	4	8	1	1	1	1	12	0
Maine	7	0	0	3	1	0	0	0	3	0
Maryland	154	7	13	11	15	3	5	16	84	0
Massachusetts	187	2	3	28	18	15	18	1	102	0
Michigan	99	6	9	8	27	12	0	4	33	0
Minnesota	155	11	3	12	9	10	1	1	108	0
Mississippi	13	2	5	1	2	0	0	0	3	0
Missouri	38	3	4	5	4	4	0	2	16	0
Montana	0	0	0	0	0	0	0	0	0	0
Nebraska	9	2	0	2	0	0	0	1	4	0
Nevada	52	14	28	2	1	0	0	0	7	0
New Hampshire	7	0	1	1	2	0	0	0	3	0
New Jersey	324	19	27	8	82	10	25	10	143	0
New Mexico	19	17	0	0	1	0	0	0	1	0
New York	988	47	38	18	62	101	74	28	620	0
North Carolina	101	40	4	8	4	1	2	2	40	0
North Dakota	1	0	0	0	0	0	0	0	1	0
Ohio	74	4	0	6	8	3	1	3	48	1
Oklahoma	32	7	1	4	4	1	0	0	15	0
Oregon	71	21	6	14	4	1	0	1	24	0
Pennsylvania	145	5	9	27	34	9	4	7	50	0
Rhode Island	27	1	1	0	0	4	1	0	20	0
South Carolina	23	2	2	3	7	1	0	2	6	0
South Dakota	4	1	1	0	0	0	0	0	2	0
Tennessee	41	8	4	5	5	0	0	0	19	0
Texas	648	364	20	70	29	5	1	10	149	0
Utah	19	5	1	3	0	1	0	0	9	0
Vermont	1	0	0	0	0	0	0	0	1	0
Virginia	155	5	18	17	10	3	0	8	94	0
Washington	150	27	21	27	8	5	0	5	57	0
West Virginia	0	0	0	0	0	0	0	0	0	0
Wisconsin	48	11	4	2	7	3	0	0	21	0
Wyoming	1	1	0	0	0	0	0	0	0	0

1. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.

2. Includes 145 countries.

See Surveillance Slide #11.

Table 20. Tuberculosis Cases in Foreign-born Persons¹ by Number of Years in the United States: States, 1999

State	Total Cases	<1 Year		1 - 4		5 - 9		10 - 19		20+		Unknown or Missing	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
United States	7,553	1,450	19.2	1,552	20.5	1,088	14.4	1,305	17.3	966	12.8	1,192	15.8
Alabama	26	7	26.9	7	26.9	4	15.4	5	19.2	3	11.5	0	0.0
Alaska	14	1	7.1	1	7.1	0	0.0	0	0.0	0	0.0	12	85.7
Arizona	107	26	24.3	19	17.8	7	6.5	18	16.8	13	12.1	24	22.4
Arkansas	16	3	18.8	2	12.5	3	18.8	3	18.8	0	0.0	5	31.3
California	2,503	389	15.5	375	15.0	394	15.7	556	22.2	403	16.1	386	15.4
Colorado	47	15	31.9	15	31.9	8	17.0	6	12.8	3	6.4	0	0.0
Connecticut	74	7	9.5	24	32.4	15	20.3	13	17.6	12	16.2	3	4.1
Delaware	14	5	35.7	2	14.3	2	14.3	1	7.1	0	0.0	4	28.6
District of Columbia	22	5	22.7	7	31.8	4	18.2	3	13.6	1	4.5	2	9.1
Florida	442	89	20.1	86	19.5	60	13.6	87	19.7	44	10.0	76	17.2
Georgia	136	43	31.6	27	19.9	12	8.8	11	8.1	1	0.7	42	30.9
Hawaii	137	47	34.3	12	8.8	14	10.2	27	19.7	25	18.2	12	8.8
Idaho	5	0	0.0	1	20.0	1	20.0	0	0.0	1	20.0	2	40.0
Illinois	264	32	12.1	62	23.5	57	21.6	40	15.2	48	18.2	25	9.5
Indiana	36	8	22.2	8	22.2	4	11.1	2	5.6	1	2.8	13	36.1
Iowa	38	7	18.4	6	15.8	5	13.2	2	5.3	0	0.0	18	47.4
Kansas	28	3	10.7	10	35.7	7	25.0	3	10.7	4	14.3	1	3.6
Kentucky	21	9	42.9	4	19.0	3	14.3	2	9.5	1	4.8	2	9.5
Louisiana	30	5	16.7	6	20.0	2	6.7	4	13.3	4	13.3	9	30.0
Maine	7	0	0.0	1	14.3	3	42.9	1	14.3	1	14.3	1	14.3
Maryland	154	40	26.0	31	20.1	11	7.1	13	8.4	8	5.2	51	33.1
Massachusetts	187	42	22.5	51	27.3	36	19.3	37	19.8	14	7.5	7	3.7
Michigan	99	16	16.2	33	33.3	18	18.2	13	13.1	18	18.2	1	1.0
Minnesota	155	50	32.3	35	22.6	11	7.1	6	3.9	1	0.6	52	33.5
Mississippi	13	3	23.1	1	7.7	2	15.4	4	30.8	2	15.4	1	7.7
Missouri	38	9	23.7	10	26.3	6	15.8	3	7.9	5	13.2	5	13.2
Montana	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Nebraska	9	0	0.0	3	33.3	1	11.1	1	11.1	0	0.0	4	44.4
Nevada	52	17	32.7	8	15.4	11	21.2	8	15.4	6	11.5	2	3.8
New Hampshire	7	2	28.6	2	28.6	0	0.0	0	0.0	0	0.0	3	42.9
New Jersey	324	63	19.4	75	23.1	38	11.7	36	11.1	19	5.9	93	28.7
New Mexico	19	10	52.6	2	10.5	1	5.3	3	15.8	3	15.8	0	0.0
New York	988	168	17.0	224	22.7	156	15.8	181	18.3	123	12.4	136	13.8
North Carolina	101	27	26.7	34	33.7	9	8.9	11	10.9	9	8.9	11	10.9
North Dakota	1	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Ohio	74	14	18.9	15	20.3	9	12.2	5	6.8	10	13.5	21	28.4
Oklahoma	32	3	9.4	4	12.5	4	12.5	1	3.1	3	9.4	17	53.1
Oregon	71	13	18.3	14	19.7	8	11.3	11	15.5	12	16.9	13	18.3
Pennsylvania	145	28	19.3	22	15.2	12	8.3	17	11.7	10	6.9	56	38.6
Rhode Island	27	4	14.8	2	7.4	2	7.4	3	11.1	1	3.7	15	55.6
South Carolina	23	11	47.8	2	8.7	4	17.4	3	13.0	0	0.0	3	13.0
South Dakota	4	0	0.0	3	75.0	1	25.0	0	0.0	0	0.0	0	0.0
Tennessee	41	10	24.4	12	29.3	3	7.3	3	7.3	3	7.3	10	24.4
Texas	648	109	16.8	165	25.5	100	15.4	130	20.1	137	21.1	7	1.1
Utah	19	2	10.5	2	10.5	3	15.8	3	15.8	2	10.5	7	36.8
Vermont	1	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0
Virginia	155	58	37.4	91	58.7	5	3.2	0	0.0	0	0.0	1	0.6
Washington	150	33	22.0	26	17.3	26	17.3	21	14.0	11	7.3	33	22.0
West Virginia	0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Wisconsin	48	16	33.3	10	20.8	6	12.5	7	14.6	4	8.3	5	10.4
Wyoming	1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0

1. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.

See Surveillance Slide #13.

Table 21. Tuberculosis Cases by Form of Disease: States, 1999

State	Total Cases	Pulmonary ¹		Extrapulmonary ²		Cases with Both Pulmonary and Extrapulmonary Disease		
		No.	%	No.	%	'Total' ³		Miliary No.
						No.	%	
United States	17,531	12,761	72.8	3,438	19.6	1,322	7.5	321
Alabama	314	257	81.8	42	13.4	15	4.8	0
Alaska	61	51	83.6	7	11.5	3	4.9	0
Arizona	262	215	82.1	27	10.3	20	7.6	6
Arkansas	181	151	83.4	16	8.8	14	7.7	2
California	3,606	2,629	72.9	721	20.0	253	7.0	67
Colorado	88	54	61.4	23	26.1	11	12.5	4
Connecticut	121	79	65.3	33	27.3	9	7.4	3
Delaware	34	25	73.5	3	8.8	6	17.6	2
District of Columbia	70	60	85.7	9	12.9	1	1.4	0
Florida	1,277	1,005	78.7	203	15.9	69	5.4	18
Georgia	665	508	76.4	113	17.0	43	6.5	9
Hawaii	184	156	84.8	24	13.0	4	2.2	0
Idaho	16	12	75.0	1	6.3	3	18.8	2
Illinois	825	617	74.8	182	22.1	26	3.2	8
Indiana	150	119	79.3	26	17.3	5	3.3	3
Iowa	58	39	67.2	18	31.0	1	1.7	1
Kansas	69	44	63.8	18	26.1	7	10.1	0
Kentucky	209	176	84.2	25	12.0	8	3.8	2
Louisiana	357	297	83.2	43	12.0	17	4.8	2
Maine	23	14	60.9	9	39.1	0	0.0	0
Maryland	294	196	66.7	67	22.8	31	10.5	17
Massachusetts	270	150	55.6	89	33.0	31	11.5	15
Michigan	351	234	66.7	83	23.6	33	9.4	3
Minnesota	201	129	64.2	55	27.4	17	8.5	5
Mississippi	215	176	81.9	35	16.3	4	1.9	0
Missouri	208	157	75.5	37	17.8	14	6.7	2
Montana	14	10	71.4	4	28.6	0	0.0	0
Nebraska	18	11	61.1	7	38.9	0	0.0	0
Nevada	93	77	82.8	15	16.1	1	1.1	0
New Hampshire	19	14	73.7	3	15.8	2	10.5	0
New Jersey	571	376	65.8	141	24.7	54	9.5	11
New Mexico	64	46	71.9	7	10.9	11	17.2	1
New York	1,837	1,235	67.2	373	20.3	228	12.4	45
North Carolina	488	377	77.3	85	17.4	26	5.3	14
North Dakota	7	3	42.9	3	42.9	1	14.3	0
Ohio	317	216	68.1	81	25.6	19	6.0	8
Oklahoma	208	157	75.5	39	18.8	12	5.8	3
Oregon	123	80	65.0	32	26.0	11	8.9	4
Pennsylvania	454	314	69.2	106	23.3	33	7.3	9
Rhode Island	53	30	56.6	19	35.8	4	7.5	2
South Carolina	315	203	64.4	67	21.3	45	14.3	16
South Dakota	21	13	61.9	6	28.6	2	9.5	0
Tennessee	382	279	73.0	60	15.7	43	11.3	7
Texas	1,649	1,218	73.9	306	18.6	124	7.5	17
Utah	40	23	57.5	12	30.0	5	12.5	1
Vermont	3	1	33.3	1	33.3	1	33.3	1
Virginia	334	252	75.4	71	21.3	11	3.3	2
Washington	258	163	63.2	60	23.3	35	13.6	6
West Virginia	41	34	82.9	5	12.2	1	2.4	1
Wisconsin	110	77	70.0	26	23.6	7	6.4	1
Wyoming	3	2	66.7	0	0.0	1	33.3	1
American Samoa ⁴	4	3	75.0	1	25.0	0	0.0	0
Fed. States of Micronesia ⁴	...	...	...	...	...	...	...	...
Guam ⁴	69	64	92.8	3	4.3	2	2.9	2
N. Mariana Islands ⁴	66	55	83.3	5	7.6	6	9.1	1
Puerto Rico ⁴	200	172	86.0	22	11.0	6	3.0	2
Republic of Palau ⁴	11	9	81.8	2	18.2	0	0.0	0
U.S. Virgin Islands ⁴	...	...	...	...	...	...	...	...

1. Includes cases with pulmonary listed as major site of disease and no additional site of disease.

2. Includes cases with pleural, lymphatic, bone and/or joint, meningeal, peritoneal, or other site, excluding pulmonary, listed as major site of disease.

3. Includes miliary cases.

4. Not included in U.S. totals.

Ellipses indicate data not available.

Note: 10 (0.1%) cases had missing and/or unknown site of disease.

Table 22. Extrapulmonary Tuberculosis Cases by Site of Disease: States, 1999

State	Total Extra- pulmonary Cases	Pleural	Lymphatic	Bone and/ or Joint	Genito- urinary	Meningeal	Peritoneal	Other
United States	3,438	727	1,385	376	217	171	136	426
Alabama	42	18	7	7	1	3	0	6
Alaska	7	0	4	0	0	0	1	2
Arizona	27	6	8	6	3	0	1	3
Arkansas	16	8	6	0	1	0	0	1
California	721	128	319	87	55	31	33	68
Colorado	23	2	14	2	0	1	1	3
Connecticut	33	5	12	4	3	3	3	3
Delaware	3	1	0	0	2	0	0	0
District of Columbia	9	0	5	2	1	0	0	1
Florida	203	38	77	19	12	9	7	41
Georgia	113	28	37	8	3	12	4	21
Hawaii	24	4	6	4	4	1	0	5
Idaho	1	0	0	0	0	0	0	1
Illinois	182	46	64	25	12	8	6	21
Indiana	26	9	8	0	1	3	0	5
Iowa	18	5	7	2	3	0	0	1
Kansas	18	3	6	1	0	1	2	5
Kentucky	25	7	5	6	4	0	1	2
Louisiana	43	11	14	5	2	1	2	8
Maine	9	0	1	4	2	0	0	2
Maryland	67	16	29	6	4	2	7	3
Massachusetts	89	13	50	9	4	0	1	12
Michigan	83	21	33	10	2	3	6	8
Minnesota	55	10	26	7	0	2	4	6
Mississippi	35	14	8	2	0	5	1	5
Missouri	37	10	11	6	4	2	1	3
Montana	4	2	0	1	0	0	0	1
Nebraska	7	0	5	0	0	0	0	2
Nevada	15	3	6	2	0	1	1	2
New Hampshire	3	0	1	0	1	0	0	1
New Jersey	141	17	76	21	8	2	4	13
New Mexico	7	4	2	1	0	0	0	0
New York	373	64	167	40	19	26	15	42
North Carolina	85	30	19	10	5	7	3	11
North Dakota	3	1	0	0	1	0	0	1
Ohio	81	16	26	12	4	4	3	16
Oklahoma	39	7	22	3	0	2	2	3
Oregon	32	3	12	6	4	1	2	4
Pennsylvania	106	21	47	9	11	3	3	12
Rhode Island	19	1	11	0	0	0	0	7
South Carolina	67	28	18	2	4	1	3	11
South Dakota	6	1	0	0	1	2	2	0
Tennessee	60	19	18	2	3	5	3	10
Texas	306	73	117	29	19	23	9	36
Utah	12	1	5	1	2	0	1	2
Vermont	1	0	1	0	0	0	0	0
Virginia	71	18	37	2	3	5	2	4
Washington	60	12	29	8	2	1	2	6
West Virginia	5	0	0	1	3	0	0	1
Wisconsin	26	3	9	4	4	1	0	5
Wyoming	0	0	0	0	0	0	0	0
American Samoa ¹	1	0	1	0	0	0	0	0
Fed. States of Micronesia ¹	...	...	...	...	...	...	...	...
Guam ¹	3	2	1	0	0	0	0	0
N. Mariana Islands ¹	5	1	4	0	0	0	0	0
Puerto Rico ¹	22	9	7	3	1	0	0	2
Republic of Palau ¹	2	0	0	1	1	0	0	0
U.S. Virgin Islands ¹	...	...	...	...	...	...	...	...

1. Not included in U.S. totals.

Ellipses indicate data not available.

Table 23. Tuberculosis Cases in Residents of Correctional Facilities: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on Residence in Correctional Facilities		Percent of Cases in Residents of Correctional Facilities ¹
		No.	%	
United States	17,531	17,462	99.6	3.3
Alabama	314	314	100.0	2.2
Alaska	61	61	100.0	1.6
Arizona	262	262	100.0	6.9
Arkansas	181	180	99.4	5.0
California	3,606	3,597	99.8	3.3
Colorado	88	88	100.0	0.0
Connecticut	121	120	99.2	1.7
Delaware	34	33	97.1	0.0
District of Columbia	70	70	100.0	4.3
Florida	1,277	1,277	100.0	3.7
Georgia	665	652	98.0	3.2
Hawaii	184	181	98.4	2.8
Idaho	16	16	100.0	6.3
Illinois	825	818	99.2	2.2
Indiana	150	147	98.0	1.4
Iowa	58	54	93.1	0.0
Kansas	69	68	98.6	1.5
Kentucky	209	209	100.0	4.8
Louisiana	357	355	99.4	2.5
Maine	23	23	100.0	0.0
Maryland	294	294	100.0	2.7
Massachusetts	270	270	100.0	0.4
Michigan	351	351	100.0	2.3
Minnesota	201	201	100.0	2.0
Mississippi	215	215	100.0	1.4
Missouri	208	205	98.6	3.4
Montana	14	14	100.0	0.0
Nebraska	18	18	100.0	0.0
Nevada	93	92	98.9	5.4
New Hampshire	19	19	100.0	0.0
New Jersey	571	571	100.0	1.2
New Mexico	64	64	100.0	1.6
New York State ²	377	376	99.7	5.9
New York City	1,460	1,460	100.0	2.8
North Carolina	488	488	100.0	2.3
North Dakota	7	7	100.0	0.0
Ohio	317	315	99.4	2.2
Oklahoma	208	208	100.0	6.7
Oregon	123	122	99.2	0.8
Pennsylvania	454	440	96.9	1.8
Rhode Island	53	52	98.1	1.9
South Carolina	315	314	99.7	7.6
South Dakota	21	21	100.0	0.0
Tennessee	382	382	100.0	3.4
Texas	1,649	1,649	100.0	6.2
Utah	40	40	100.0	2.5
Vermont	3	3	100.0	0.0
Virginia	334	334	100.0	2.1
Washington	258	258	100.0	1.6
West Virginia	41	41	100.0	0.0
Wisconsin	110	110	100.0	2.7
Wyoming	3	3	100.0	33.3
American Samoa ³	4	4	100.0	0.0
Fed. States of Micronesia ³	...	...	...	...
Guam ³	69	69	100.0	1.4
N. Mariana Islands ³	66	66	100.0	1.5
Puerto Rico ³	200	200	100.0	6.5
Republic of Palau ³	11	11	100.0	18.2
U.S. Virgin Islands ³	...	...	...	...

1. Resident of correctional facility at time of diagnosis. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for >75% of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 24. Tuberculosis Cases by Homeless Status: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on Homeless Status		Percent of Cases in Homeless Persons ¹
		No.	%	
United States	17,531	16,808	95.9	6.3
Alabama	314	312	99.4	3.8
Alaska	61	61	100.0	3.3
Arizona	262	258	98.5	14.0
Arkansas	181	180	75.0	3.9
California	3,606	3,554	98.6	6.6
Colorado	88	88	100.0	12.5
Connecticut	121	119	98.3	9.2
Delaware	34	34	100.0	2.9
District of Columbia	70	70	100.0	14.3
Florida	1,277	1,276	99.9	8.7
Georgia	665	632	95.0	7.0
Hawaii	184	184	100.0	0.0
Idaho	16	15	93.8	6.7
Illinois	825	796	96.5	6.7
Indiana	150	133	88.7	3.0
Iowa	58	48	82.8	6.3
Kansas	69	64	92.8	1.6
Kentucky	209	205	98.1	12.2
Louisiana	357	350	98.0	5.7
Maine	23	23	100.0	8.7
Maryland	294	293	99.7	3.1
Massachusetts	270	269	99.6	4.5
Michigan	351	342	97.4	3.5
Minnesota	201	201	100.0	3.0
Mississippi	215	215	100.0	1.4
Missouri	208	197	94.7	14.2
Montana	14	14	100.0	35.7
Nebraska	18	18	100.0	11.1
Nevada	93	92	98.9	8.7
New Hampshire	19	18	94.7	0.0
New Jersey	571	571	100.0	5.3
New Mexico	64	64	100.0	7.8
New York State ²	377	372	98.7	1.9
New York City	1,460	987	67.6	--
North Carolina	488	486	99.6	7.0
North Dakota	7	6	85.7	16.7
Ohio	317	313	98.7	7.3
Oklahoma	208	208	100.0	11.1
Oregon	123	121	98.4	10.7
Pennsylvania	454	423	93.2	2.1
Rhode Island	53	52	98.1	0.0
South Carolina	315	314	99.7	3.8
South Dakota	21	21	100.0	14.3
Tennessee	382	376	98.4	7.4
Texas	1,649	1,649	100.0	6.6
Utah	40	40	100.0	17.5
Vermont	3	3	100.0	0.0
Virginia	334	334	100.0	2.7
Washington	258	257	99.6	6.2
West Virginia	41	37	90.2	13.5
Wisconsin	110	110	100.0	4.5
Wyoming	3	3	100.0	0.0
American Samoa ³	4	4	100.0	0.0
Fed. States of Micronesia ³	...	...	...	...
Guam ³	69	69	100.0	0.0
N. Mariana Islands ³	66	66	100.0	0.0
Puerto Rico ³	200	200	100.0	3.0
Republic of Palau ³	11	11	100.0	0.0
U.S. Virgin Islands ³	...	...	...	...

1. Homeless within past 12 months. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 25. Tuberculosis Cases in Residents of Long-term Care Facilities: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on Residence in Long-term Care Facilities		Percent of Cases in Residents of Long-term Care Facilities ¹
		No.	%	
United States	17,531	17,466	99.6	3.0
Alabama	314	314	100.0	5.4
Alaska	61	61	100.0	0.0
Arizona	262	262	100.0	2.7
Arkansas	181	179	98.9	8.9
California	3,606	3,599	99.8	2.1
Colorado	88	88	100.0	3.4
Connecticut	121	120	99.2	2.5
Delaware	34	34	100.0	2.9
District of Columbia	70	70	100.0	4.3
Florida	1,277	1,277	100.0	2.0
Georgia	665	651	97.9	2.5
Hawaii	184	184	100.0	1.1
Idaho	16	16	100.0	6.3
Illinois	825	816	98.9	4.4
Indiana	150	149	99.3	2.7
Iowa	58	52	89.7	1.9
Kansas	69	68	98.6	5.9
Kentucky	209	209	100.0	9.1
Louisiana	357	355	99.4	2.8
Maine	23	23	100.0	17.4
Maryland	294	293	99.7	2.4
Massachusetts	270	270	100.0	3.7
Michigan	351	351	100.0	2.6
Minnesota	201	201	100.0	1.0
Mississippi	215	215	100.0	3.7
Missouri	208	205	98.6	8.8
Montana	14	14	100.0	7.1
Nebraska	18	18	100.0	5.6
Nevada	93	92	98.9	0.0
New Hampshire	19	19	100.0	5.3
New Jersey	571	571	100.0	2.1
New Mexico	64	64	100.0	3.1
New York State ²	377	377	100.0	4.2
New York City	1,460	1,458	99.9	1.4
North Carolina	488	488	100.0	4.9
North Dakota	7	7	100.0	14.3
Ohio	317	315	99.4	5.7
Oklahoma	208	208	100.0	2.4
Oregon	123	122	99.2	9.0
Pennsylvania	454	445	98.0	6.1
Rhode Island	53	52	98.1	1.9
South Carolina	315	314	99.7	2.5
South Dakota	21	21	100.0	9.5
Tennessee	382	381	99.7	3.4
Texas	1,649	1,649	100.0	2.5
Utah	40	40	100.0	2.5
Vermont	3	3	100.0	0.0
Virginia	334	334	100.0	1.8
Washington	258	258	100.0	3.1
West Virginia	41	41	100.0	0.0
Wisconsin	110	110	100.0	4.5
Wyoming	3	3	100.0	0.0
American Samoa ³	4	4	100.0	0.0
Fed. States of Micronesia ³	...	...	...	...
Guam ³	69	69	100.0	0.0
N. Mariana Islands ³	66	66	100.0	0.0
Puerto Rico ³	200	200	100.0	3.0
Republic of Palau ³	11	11	100.0	0.0
U.S. Virgin Islands ³	...	...	...	...

1. Resident of long-term care facility at time of diagnosis. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 26. Tuberculosis Cases by Injecting Drug Use: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on Injecting Drug Use		Percent of Cases in Injecting Drug Users ¹
		No.	%	
United States	17,531	16,331	93.2	2.6
Alabama	314	280	89.2	1.8
Alaska	61	50	82.0	0.0
Arizona	262	251	95.8	4.0
Arkansas	181	176	97.2	0.0
California	3,606	3,438	95.3	2.7
Colorado	88	87	98.9	1.1
Connecticut	121	112	92.6	3.6
Delaware	34	34	100.0	0.0
District of Columbia	70	67	95.7	6.0
Florida	1,277	1,218	95.4	1.7
Georgia	665	517	77.7	1.4
Hawaii	184	165	89.7	0.6
Idaho	16	14	87.5	0.0
Illinois	825	648	78.5	4.5
Indiana	150	138	92.0	2.9
Iowa	58	25	43.1	--
Kansas	69	60	87.0	3.3
Kentucky	209	199	95.2	1.5
Louisiana	357	325	91.0	5.8
Maine	23	22	95.7	0.0
Maryland	294	285	96.9	3.9
Massachusetts	270	237	87.8	2.5
Michigan	351	331	94.3	1.8
Minnesota	201	200	99.5	1.0
Mississippi	215	215	100.0	0.5
Missouri	208	192	92.3	3.1
Montana	14	14	100.0	14.3
Nebraska	18	18	100.0	0.0
Nevada	93	92	98.9	1.1
New Hampshire	19	18	94.7	0.0
New Jersey	571	567	99.3	5.3
New Mexico	64	60	93.8	0.0
New York State ²	377	356	94.4	0.8
New York City	1,460	1,320	90.4	3.2
North Carolina	488	482	98.8	0.4
North Dakota	7	5	71.4	--
Ohio	317	293	92.4	1.7
Oklahoma	208	206	99.0	5.8
Oregon	123	117	95.1	1.7
Pennsylvania	454	370	81.5	5.7
Rhode Island	53	52	98.1	1.9
South Carolina	315	285	90.5	0.7
South Dakota	21	21	100.0	0.0
Tennessee	382	370	96.9	1.9
Texas	1,649	1,632	99.0	3.1
Utah	40	39	97.5	5.1
Vermont	3	1	33.3	--
Virginia	334	334	100.0	0.3
Washington	258	253	98.1	1.6
West Virginia	41	30	73.2	--
Wisconsin	110	108	98.2	2.8
Wyoming	3	2	66.7	--
American Samoa ³	4	4	100.0	0.0
Fed. States of Micronesia ³	...	...	...	...
Guam ³	69	67	97.1	0.0
N. Mariana Islands ³	66	66	100.0	0.0
Puerto Rico ³	200	198	99.0	19.2
Republic of Palau ³	11	7	63.6	--
U.S. Virgin Islands ³	...	...	...	...

1. Injecting drug use within past 12 months. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 27. Tuberculosis Cases by Noninjecting Drug Use: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on Noninjecting Drug Use		Percent of Cases in Noninjecting Drug Users ¹
		No.	%	
United States	17,531	16,232	92.6	7.1
Alabama	314	275	87.6	5.1
Alaska	61	50	82.0	12.0
Arizona	262	250	95.4	8.0
Arkansas	181	176	97.2	0.6
California	3,606	3,425	95.0	6.7
Colorado	88	87	98.9	5.7
Connecticut	121	109	90.1	6.4
Delaware	34	33	97.1	0.0
District of Columbia	70	67	95.7	11.9
Florida	1,277	1,218	95.4	12.2
Georgia	665	514	77.3	11.3
Hawaii	184	164	89.1	0.0
Idaho	16	13	81.3	7.7
Illinois	825	635	77.0	10.2
Indiana	150	136	90.7	3.7
Iowa	58	23	39.7	--
Kansas	69	63	91.3	9.5
Kentucky	209	198	94.7	7.6
Louisiana	357	323	90.5	13.0
Maine	23	22	95.7	0.0
Maryland	294	280	95.2	6.1
Massachusetts	270	233	86.3	3.9
Michigan	351	329	93.7	4.6
Minnesota	201	199	99.0	3.5
Mississippi	215	214	99.5	5.6
Missouri	208	192	92.3	9.9
Montana	14	14	100.0	21.4
Nebraska	18	18	100.0	0.0
Nevada	93	91	97.8	1.1
New Hampshire	19	18	94.7	0.0
New Jersey	571	566	99.1	7.4
New Mexico	64	60	93.8	0.0
New York State ²	377	352	93.4	4.3
New York City	1,460	1,318	90.3	8.7
North Carolina	488	473	96.9	10.6
North Dakota	7	5	71.4	--
Ohio	317	289	91.2	7.3
Oklahoma	208	205	98.6	4.9
Oregon	123	113	91.9	6.2
Pennsylvania	454	359	79.1	5.8
Rhode Island	53	52	98.1	5.8
South Carolina	315	283	89.8	8.5
South Dakota	21	21	100.0	0.0
Tennessee	382	370	96.9	8.6
Texas	1,649	1,632	99.0	5.0
Utah	40	39	97.5	7.7
Vermont	3	1	33.3	--
Virginia	334	334	100.0	0.9
Washington	258	250	96.9	2.8
West Virginia	41	31	75.6	3.2
Wisconsin	110	108	98.2	4.6
Wyoming	3	2	66.7	--
American Samoa ³	4	4	100.0	0.0
Fed. States of Micronesia ³	...	...	...	...
Guam ³	69	65	94.2	1.5
N. Mariana Islands ³	66	66	100.0	0.0
Puerto Rico ³	200	198	99.0	16.2
Republic of Palau ³	11	8	72.7	--
U.S. Virgin Islands ³	...	...	...	...

1. Noninjecting drug use within past 12 months. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 28. Tuberculosis Cases by Excess Alcohol Use: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on Excess Alcohol Use		Percent of Cases in Persons with Excess Alcohol Use ¹
		No.	%	
United States	17,531	16,328	93.1	15.5
Alabama	314	278	88.5	18.3
Alaska	61	55	90.2	43.6
Arizona	262	252	96.2	21.0
Arkansas	181	177	97.8	10.2
California	3,606	3,433	95.2	12.2
Colorado	88	88	100.0	8.0
Connecticut	121	110	90.9	13.6
Delaware	34	33	97.1	9.1
District of Columbia	70	67	95.7	19.4
Florida	1,277	1,218	95.4	24.3
Georgia	665	532	80.0	19.4
Hawaii	184	172	93.5	6.4
Idaho	16	16	100.0	37.5
Illinois	825	636	77.1	20.6
Indiana	150	140	93.3	3.6
Iowa	58	27	46.6	--
Kansas	69	63	91.3	17.5
Kentucky	209	201	96.2	18.9
Louisiana	357	320	89.6	27.8
Maine	23	22	95.7	0.0
Maryland	294	284	96.6	8.5
Massachusetts	270	232	85.9	7.8
Michigan	351	326	92.9	8.3
Minnesota	201	198	98.5	9.1
Mississippi	215	215	100.0	25.6
Missouri	208	191	91.8	20.9
Montana	14	14	100.0	42.9
Nebraska	18	18	100.0	5.6
Nevada	93	92	98.9	8.7
New Hampshire	19	19	100.0	10.5
New Jersey	571	568	99.5	14.1
New Mexico	64	60	93.8	16.7
New York State ²	377	353	93.6	8.2
New York City	1,460	1,321	90.5	12.3
North Carolina	488	475	97.3	27.2
North Dakota	7	5	71.4	--
Ohio	317	295	93.1	15.6
Oklahoma	208	206	99.0	14.6
Oregon	123	114	92.7	15.8
Pennsylvania	454	363	80.0	13.8
Rhode Island	53	52	98.1	7.7
South Carolina	315	287	91.1	27.9
South Dakota	21	21	100.0	38.1
Tennessee	382	366	95.8	18.3
Texas	1,649	1,636	99.2	15.3
Utah	40	39	97.5	20.5
Vermont	3	2	66.7	--
Virginia	334	334	100.0	3.6
Washington	258	253	98.1	7.5
West Virginia	41	37	90.2	29.7
Wisconsin	110	110	100.0	13.6
Wyoming	3	2	66.7	--
American Samoa ³	4	3	75.0	0.0
Fed. States of Micronesia ³	...	...	...	...
Guam ³	69	64	92.8	3.1
N. Mariana Islands ³	66	65	98.5	13.8
Puerto Rico ³	200	198	99.0	15.7
Republic of Palau ³	11	7	63.6	--
U.S. Virgin Islands ³	...	...	...	...

1. Excess alcohol use within past 12 months. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for $\geq 75\%$ of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 29. Tuberculosis Cases by Initial Drug Regimen: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases Alive at Diagnosis	Cases with Information on Initial Drug Regimen		Percent of Cases with Initial Drug Regimen ¹		
			No.	%	IR	IRZ	IRZ,E/S ²
United States	17,531	16,998	16,919	99.5	2.2	11.2	76.8
Alabama	314	301	301	100.0	2.7	70.1	23.3
Alaska	61	60	60	100.0	0.0	5.0	90.0
Arizona	262	250	250	100.0	0.0	9.6	79.2
Arkansas	181	175	171	97.7	43.9	37.4	14.6
California	3,606	3,513	3,506	99.8	1.3	6.2	85.1
Colorado	88	86	85	98.8	0.0	1.2	92.9
Connecticut	121	120	120	100.0	0.8	14.2	80.0
Delaware	34	34	34	100.0	0.0	8.8	88.2
District of Columbia	70	68	68	100.0	0.0	4.4	85.3
Florida	1,277	1,232	1,232	100.0	1.4	8.5	79.6
Georgia	665	646	642	99.4	0.9	13.6	77.1
Hawaii	184	178	176	98.9	7.4	16.5	71.0
Idaho	16	16	16	100.0	0.0	25.0	75.0
Illinois	825	808	797	98.6	1.5	7.7	73.4
Indiana	150	146	146	100.0	2.7	19.9	63.7
Iowa	58	57	57	100.0	1.8	21.1	66.7
Kansas	69	65	63	96.9	4.8	22.2	61.9
Kentucky	209	200	200	100.0	1.0	11.0	77.0
Louisiana	357	343	332	96.8	2.4	14.5	77.4
Maine	23	23	23	100.0	4.3	17.4	73.9
Maryland	294	286	286	100.0	1.0	6.6	87.8
Massachusetts	270	264	264	100.0	0.8	6.1	84.1
Michigan	351	337	337	100.0	5.0	32.9	51.6
Minnesota	201	198	198	100.0	0.5	16.7	71.7
Mississippi	215	208	207	99.5	1.4	16.4	79.7
Missouri	208	202	201	99.5	2.0	8.5	72.6
Montana	14	13	13	100.0	0.0	15.4	84.6
Nebraska	18	18	18	100.0	11.1	5.6	61.1
Nevada	93	92	92	100.0	1.1	5.4	87.0
New Hampshire	19	18	18	100.0	0.0	22.2	77.8
New Jersey	571	548	548	100.0	2.0	9.3	73.9
New Mexico	64	57	57	100.0	1.8	33.3	61.4
New York State ³	377	364	364	100.0	1.6	8.0	81.3
New York City	1,460	1,426	1,426	100.0	1.1	3.6	81.6
North Carolina	488	477	476	99.8	0.4	3.8	89.3
North Dakota	7	7	7	100.0	14.3	14.3	71.4
Ohio	317	305	304	99.7	5.9	22.7	56.9
Oklahoma	208	199	199	100.0	8.5	17.1	58.8
Oregon	123	122	118	96.7	0.8	4.2	90.7
Pennsylvania	454	432	417	96.5	2.6	9.4	78.4
Rhode Island	53	53	52	98.1	3.8	1.9	84.6
South Carolina	315	302	302	100.0	1.0	16.2	64.2
South Dakota	21	19	19	100.0	0.0	10.5	78.9
Tennessee	382	371	371	100.0	2.4	19.4	68.5
Texas	1,649	1,598	1,586	99.2	1.8	10.2	77.7
Utah	40	36	36	100.0	5.6	16.7	69.4
Vermont	3	3	3	100.0	0.0	0.0	66.7
Virginia	334	324	324	100.0	1.2	14.8	77.5
Washington	258	250	250	100.0	1.6	6.0	89.6
West Virginia	41	39	39	100.0	10.3	35.9	35.9
Wisconsin	110	106	105	99.1	3.8	9.5	75.2
Wyoming	3	3	3	100.0	0.0	0.0	66.7
American Samoa ⁴	4	4	4	100.0	0.0	0.0	100.0
Fed. States of Micronesia ⁴	...	...	...	...	...	...	...
Guam ⁴	69	67	67	100.0	0.0	0.0	86.6
N. Mariana Islands ⁴	66	64	64	100.0	0.0	4.7	90.6
Puerto Rico ⁴	200	181	181	100.0	0.0	1.7	93.4
Republic of Palau ⁴	11	11	11	100.0	9.1	9.1	63.6
U.S. Virgin Islands ⁴	...	...	...	...	...	...	...

1. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for >75% of cases.

2. I=isoniazid; R=rifampin; Z=pyrazinamide; E=ethambutol; S=streptomycin.

3. Excludes New York City.

4. Not included in U.S. totals.

Ellipses indicate data not available.

Note: Excluding cases with no information on initial drug regimen, 159 (0.9%) were not started on any drugs, 27 (0.2%) were started on one drug, and 1,463 (8.6%) had an initial multidrug regimen other than IR, IRZ, and IRZ,E/S.

Table 30. Isoniazid-Resistant Tuberculosis Cases with or without Rifampin Resistance: 59 Reporting Areas, 1999

Reporting Area	Total Culture Positive Cases	Cases with Initial Drug Susceptibility Testing Performed		Resistance ¹			
		No.	%	Isoniazid		Isoniazid and Rifampin	
				No.	%	No.	%
United States	13,997	12,869	91.9	962	7.5	154	1.2
Alabama	268	252	94.0	2	0.8	0	0.0
Alaska	59	59	100.0	1	1.7	0	0.0
Arizona	231	224	97.0	9	4.0	2	0.9
Arkansas	136	131	96.3	8	6.1	0	0.0
California	2,733	2,585	94.6	276	10.7	33	1.3
Colorado	71	71	100.0	5	7.0	0	0.0
Connecticut	110	104	94.5	6	5.8	2	1.9
Delaware	26	23	88.5	1	4.3	0	0.0
District of Columbia	65	50	76.9	3	6.0	1	2.0
Florida	1,141	1,006	88.2	109	10.8	12	1.2
Georgia	504	384	76.2	28	7.3	4	1.0
Hawaii	141	136	96.5	12	8.8	2	1.5
Idaho	15	11	73.3	--	--	--	--
Illinois	689	630	91.4	31	4.9	9	1.4
Indiana	118	112	94.9	5	4.5	1	0.9
Iowa	40	30	75.0	2	6.7	1	3.3
Kansas	59	55	93.2	3	5.5	0	0.0
Kentucky	189	164	86.8	8	4.9	2	1.2
Louisiana	293	259	88.4	6	2.3	0	0.0
Maine	20	17	85.0	0	0.0	0	0.0
Maryland	231	213	92.2	15	7.0	3	1.4
Massachusetts	227	222	97.8	15	6.8	0	0.0
Michigan	275	274	99.6	19	6.9	7	2.6
Minnesota	167	160	95.8	19	11.9	4	2.5
Mississippi	160	158	98.8	6	3.8	0	0.0
Missouri	163	154	94.5	5	3.2	2	1.3
Montana	14	14	100.0	0	0.0	0	0.0
Nebraska	18	18	100.0	3	16.7	0	0.0
Nevada	67	65	97.0	3	4.6	0	0.0
New Hampshire	17	15	88.2	0	0.0	0	0.0
New Jersey	446	436	97.8	45	10.3	6	1.4
New Mexico	59	57	96.6	4	7.0	0	0.0
New York State ²	263	257	97.7	15	5.8	1	0.4
New York City	1,145	1,042	91.0	101	9.7	34	3.3
North Carolina	398	382	96.0	23	6.0	3	0.8
North Dakota	3	0	0.0	--	--	--	--
Ohio	239	211	88.3	14	6.6	2	1.0
Oklahoma	163	152	93.3	2	1.3	0	0.0
Oregon	95	88	92.6	8	9.1	0	0.0
Pennsylvania	362	314	86.7	27	8.6	4	1.3
Rhode Island	36	27	75.0	3	11.1	1	3.7
South Carolina	233	188	80.7	5	2.7	0	0.0
South Dakota	19	18	94.7	0	0.0	0	0.0
Tennessee	304	297	97.7	11	3.7	0	0.0
Texas	1,340	1,201	89.6	61	5.1	10	0.8
Utah	29	29	100.0	1	3.4	0	0.0
Vermont	3	3	100.0	0	0.0	0	0.0
Virginia	271	243	89.7	15	6.2	4	1.6
Washington	208	198	95.2	19	9.6	2	1.0
West Virginia	39	37	94.9	2	5.4	0	0.0
Wisconsin	94	92	97.9	6	6.5	2	2.2
Wyoming	1	1	100.0	0	0.0	0	0.0
American Samoa ³	3	1	33.3	--	--	--	--
Fed. States of Micronesia ³	...	...	...	...	...	...	...
Guam ³	45	38	84.4	1	2.6	0	0.0
N. Mariana Islands ³	32	31	96.9	6	19.4	0	0.0
Puerto Rico ³	179	175	97.8	3	1.7	1	0.6
Republic of Palau ³	7	7	100.0	2	28.6	2	28.6
U.S. Virgin Islands ³	...	...	...	...	...	...	...

1. Isolates may be resistant to other drugs. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for >75% of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 31. Tuberculosis Cases, Aged 25 - 44, by HIV Status: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on HIV Status ¹		Percent of Cases in HIV-Positive Persons ²
		No.	%	
United States	6,078	3,475	57.2	--
Alabama	80	73	91.3	11.0
Alaska	26	15	57.7	--
Arizona	99	83	83.8	12.0
Arkansas	32	25	78.1	8.0
California	1,161	...	...	...
Colorado	26	23	88.5	8.7
Connecticut	45	32	71.1	--
Delaware	15	11	73.3	--
District of Columbia	30	30	100.0	43.3
Florida	516	444	86.0	44.1
Georgia	251	193	76.9	35.8
Hawaii	46	3	6.5	--
Idaho	5	4	80.0	0.0
Illinois	295	110	37.3	--
Indiana	42	13	31.0	--
Iowa	30	12	40.0	--
Kansas	27	18	66.7	--
Kentucky	58	42	72.4	--
Louisiana	114	101	88.6	24.8
Maine	5	0	0.0	--
Maryland	109	89	81.7	21.3
Massachusetts	114	58	50.9	--
Michigan	112	39	34.8	--
Minnesota	67	44	65.7	--
Mississippi	45	44	97.8	6.8
Missouri	66	55	83.3	10.9
Montana	1	1	100.0	0.0
Nebraska	8	2	25.0	--
Nevada	25	25	100.0	16.0
New Hampshire	8	5	62.5	--
New Jersey	225	126	56.0	--
New Mexico	18	12	66.7	--
New York State ³	143	84	58.7	--
New York City	671	506	75.4	42.5
North Carolina	165	149	90.3	24.2
North Dakota	0	0	0.0	--
Ohio	80	49	61.3	--
Oklahoma	70	29	41.4	--
Oregon	38	32	84.2	12.5
Pennsylvania	123	57	46.3	--
Rhode Island	11	3	27.3	--
South Carolina	107	100	93.5	35.0
South Dakota	6	5	83.3	0.0
Tennessee	118	94	79.7	25.5
Texas	594	448	75.4	30.1
Utah	10	10	100.0	30.0
Vermont	0	0	0.0	--
Virginia	114	81	71.1	--
Washington	82	57	69.5	--
West Virginia	3	3	100.0	0.0
Wisconsin	40	34	85.0	5.9
Wyoming	2	2	100.0	0.0
American Samoa ⁴	0	0	0.0	--
Fed. States of Micronesia ⁴	...	...	...	...
Guam ⁴	21	4	19.0	--
N. Mariana Islands ⁴	37	35	94.6	2.9
Puerto Rico ⁴	67	54	80.6	77.8
Republic of Palau ⁴	4	2	50.0	--
U.S. Virgin Islands ⁴	...	...	...	...

1. Includes only those cases with negative, positive, and indeterminate HIV test results.

2. Percentages shown only for reporting areas with information reported for >75% of cases.

3. Excludes New York City.

4. Not included in U.S. totals.

Ellipses indicate data not available.

Table 32. Tuberculosis Cases by Occupation: 59 Reporting Areas, 1999

Reporting Area	Total Cases	Cases with Information on Occupation		Percent of Cases by Occupation ¹					
		No.	%	Unemployed	Health	Correctional	Migrant	Other	Multiple
				Past 24 Mos.	Care Worker	Employee	Worker	Occupation	Occupations
United States	17,531	16,223	92.5	58.2	2.6	0.1	1.1	37.8	0.2
Alabama	314	308	98.1	64.0	2.6	0.0	0.3	33.1	0.0
Alaska	61	34	55.7	--	--	--	--	--	--
Arizona	262	253	96.6	59.7	0.4	0.0	2.0	37.9	0.0
Arkansas	181	168	92.8	75.6	3.6	0.6	0.0	20.2	0.0
California	3,606	3,430	95.1	59.4	2.1	0.2	1.8	36.5	0.1
Colorado	88	88	100.0	62.5	2.3	0.0	0.0	35.2	0.0
Connecticut	121	107	88.4	52.3	4.7	0.0	0.0	43.0	0.0
Delaware	34	33	97.1	48.5	3.0	0.0	6.1	42.4	0.0
District of Columbia	70	70	100.0	81.4	0.0	0.0	0.0	18.6	0.0
Florida	1,277	1,245	97.5	48.9	2.1	0.2	3.3	45.1	0.5
Georgia	665	554	83.3	52.3	1.4	0.4	1.8	44.0	0.0
Hawaii	184	171	92.9	65.5	1.2	0.6	0.6	32.2	0.0
Idaho	16	16	100.0	62.5	0.0	0.0	12.5	25.0	0.0
Illinois	825	706	85.6	58.8	3.7	0.1	0.7	36.5	0.1
Indiana	150	115	76.7	56.5	4.3	0.0	0.0	39.1	0.0
Iowa	58	40	69.0	--	--	--	--	--	--
Kansas	69	53	76.8	58.5	1.9	0.0	0.0	39.6	0.0
Kentucky	209	202	96.7	63.4	3.0	0.0	3.5	30.2	0.0
Louisiana	357	329	92.2	59.3	2.7	0.0	0.0	38.0	0.0
Maine	23	23	100.0	65.2	4.3	0.0	0.0	30.4	0.0
Maryland	294	281	95.6	56.6	3.6	0.0	0.0	39.9	0.0
Massachusetts	270	254	94.1	53.5	3.1	0.0	0.0	43.3	0.0
Michigan	351	234	66.7	--	--	--	--	--	--
Minnesota	201	196	97.5	59.2	5.1	0.0	1.0	34.7	0.0
Mississippi	215	213	99.1	66.2	1.4	0.5	0.9	30.5	0.5
Missouri	208	190	91.3	61.1	3.7	0.0	0.0	35.3	0.0
Montana	14	14	100.0	71.4	0.0	0.0	0.0	28.6	0.0
Nebraska	18	18	100.0	38.9	0.0	0.0	0.0	61.1	0.0
Nevada	93	90	96.8	63.3	0.0	0.0	0.0	36.7	0.0
New Hampshire	19	19	100.0	42.1	5.3	0.0	0.0	52.6	0.0
New Jersey	571	570	99.8	60.2	2.5	0.0	0.5	36.3	0.5
New Mexico	64	59	92.2	55.9	1.7	0.0	1.7	40.7	0.0
New York State ²	377	348	92.3	57.5	4.0	0.3	0.6	37.4	0.3
New York City	1,460	1,289	88.3	65.6	2.9	0.2	0.0	31.3	0.1
North Carolina	488	473	96.9	51.8	2.7	0.4	1.7	42.9	0.4
North Dakota	7	5	71.4	--	--	--	--	--	--
Ohio	317	298	94.0	64.4	3.4	0.3	0.7	31.2	0.0
Oklahoma	208	205	98.6	50.7	2.0	0.5	0.0	46.8	0.0
Oregon	123	116	94.3	52.6	6.0	0.0	3.4	37.1	0.9
Pennsylvania	454	371	81.7	67.4	4.6	0.0	0.0	28.0	0.0
Rhode Island	53	52	98.1	71.2	3.8	0.0	0.0	25.0	0.0
South Carolina	315	292	92.7	59.9	1.4	0.0	1.7	36.3	0.7
South Dakota	21	21	100.0	71.4	9.5	0.0	0.0	19.0	0.0
Tennessee	382	358	93.7	63.7	2.0	0.0	0.0	34.4	0.0
Texas	1,649	1,538	93.3	59.8	2.1	0.1	0.7	37.1	0.2
Utah	40	40	100.0	67.5	2.5	0.0	0.0	30.0	0.0
Vermont	3	3	100.0	33.3	0.0	0.0	0.0	66.7	0.0
Virginia	334	334	100.0	36.8	3.6	0.0	0.0	59.3	0.3
Washington	258	246	95.3	22.8	2.0	0.0	2.0	72.8	0.4
West Virginia	41	41	100.0	87.8	0.0	0.0	0.0	12.2	0.0
Wisconsin	110	108	98.2	48.1	2.8	0.0	0.9	48.1	0.0
Wyoming	3	2	66.7	--	--	--	--	--	--
American Samoa ³	4	3	75.0	66.7	0.0	0.0	0.0	33.3	0.0
Fed. States of Micronesia ³	...	...	...	...	...	...	...	...	...
Guam ³	69	45	65.2	--	--	--	--	--	--
N. Mariana Islands ³	66	66	100.0	12.1	0.0	0.0	0.0	87.9	0.0
Puerto Rico ³	200	199	99.5	86.9	1.0	1.0	0.0	11.1	0.0
Republic of Palau ³	11	8	72.7	--	--	--	--	--	--
U.S. Virgin Islands ³	...	...	...	...	...	...	...	...	...

1. Occupation within past 24 months. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for >75% of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 33. Tuberculosis Cases by Type of Health Care Provider: 59 Reporting Areas, 1997

Reporting Area	Total Cases	Cases Alive at Diagnosis	Cases with Information on Type of Health Care Provider		Percent of Cases by Type of Health Care Provider ¹		
			No.	%	Health Department	Private/Other	Both Health Department and Private/Other
United States	19,753	19,078	18,739	98.2	43.8	27.0	29.2
Alabama	405	388	388	100.0	59.0	7.5	33.5
Alaska	78	75	75	100.0	18.7	4.0	77.3
Arizona	296	284	283	99.6	53.7	29.3	17.0
Arkansas	200	191	180	94.2	56.1	1.1	42.8
California	4,044	3,942	3,924	99.5	51.4	30.4	18.2
Colorado	93	90	89	98.9	61.8	18.0	20.2
Connecticut	128	121	121	100.0	15.7	84.3	0.0
Delaware	39	37	37	100.0	59.5	16.2	24.3
District of Columbia	110	107	106	99.1	52.8	34.0	13.2
Florida	1,392	1,328	1,308	98.5	47.3	17.7	35.0
Georgia	695	678	665	98.1	41.4	18.3	40.3
Hawaii	165	161	161	100.0	48.4	18.6	32.9
Idaho	15	15	13	86.7	23.1	23.1	53.8
Illinois	966	933	905	97.0	37.8	50.2	12.0
Indiana	168	161	160	99.4	6.3	15.6	78.1
Iowa	74	73	67	91.8	49.3	11.9	38.8
Kansas	78	76	76	100.0	59.2	10.5	30.3
Kentucky	184	176	174	98.9	40.2	16.1	43.7
Louisiana	406	385	321	83.4	35.8	14.3	49.8
Maine	21	21	21	100.0	42.9	23.8	33.3
Maryland	339	331	325	98.2	64.6	15.7	19.7
Massachusetts	268	264	260	98.5	48.1	24.2	27.7
Michigan	372	358	357	99.7	54.3	31.9	13.7
Minnesota	161	159	159	100.0	50.3	47.2	2.5
Mississippi	245	239	239	100.0	5.0	2.9	92.1
Missouri	248	237	230	97.0	19.6	18.7	61.7
Montana	18	18	18	100.0	72.2	0.0	27.8
Nebraska	22	21	21	100.0	0.0	90.5	9.5
Nevada	112	106	97	91.5	72.2	10.3	17.5
New Hampshire	17	17	17	100.0	0.0	5.9	94.1
New Jersey	718	705	689	97.7	56.0	40.3	3.6
New Mexico	72	70	70	100.0	47.1	15.7	37.1
New York State ²	526	506	481	95.1	46.4	31.2	22.5
New York City	1,704	1,648	1,646	99.9	33.5	24.1	42.3
North Carolina	463	448	442	98.7	34.2	11.1	54.8
North Dakota	12	12	12	100.0	0.0	16.7	83.3
Ohio	286	270	269	99.6	46.5	33.1	20.4
Oklahoma	211	204	196	96.1	94.4	5.6	0.0
Oregon	161	159	157	98.7	42.0	29.3	28.7
Pennsylvania	524	500	471	94.2	42.0	24.8	33.1
Rhode Island	40	39	38	97.4	81.6	15.8	2.6
South Carolina	328	315	298	94.6	75.5	5.4	19.1
South Dakota	19	18	18	100.0	83.3	0.0	16.7
Tennessee	468	442	440	99.5	30.0	13.9	56.1
Texas	1,980	1,906	1,888	99.1	30.0	42.8	27.1
Utah	36	34	33	97.1	39.4	0.0	60.6
Vermont	6	6	6	100.0	0.0	0.0	100.0
Virginia	349	332	320	96.4	48.8	37.8	13.4
Washington	305	293	290	99.0	45.2	18.6	36.2
West Virginia	54	49	49	100.0	16.3	44.9	38.8
Wisconsin	130	128	127	99.2	4.7	5.5	89.8
Wyoming	2	2	2	100.0	0.0	50.0	50.0
American Samoa ³	...	...	...	...	...	...	...
Fed. States of Micronesia ³	...	...	...	...	...	...	...
Guam ³	...	...	...	...	...	...	...
N. Mariana Islands ³	94	94	91	96.8	98.9	1.1	0.0
Puerto Rico ³	257	231	229	99.1	94.8	4.8	0.4
Republic of Palau ³	17	17	15	88.2	80.0	6.7	13.3
U.S. Virgin Islands ³	...	...	...	...	...	...	...

1. Health Department: All outpatient care provided by the state or local health department; Private/Other: All care (except contact investigation and dispensing of medication) provided by non-health department providers; Both Health Department and Private/Other: Both sectors involved in the care of the patient. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for >75% of cases.

2. Excludes New York City.

3. Not included in U.S. totals.

Ellipses indicate data not available.

Table 34. Tuberculosis Cases by Directly Observed Therapy: 59 Reporting Areas, 1997

Reporting Area	Total Cases	Cases with Initial Drug Regimen Prescribed ¹	Cases with Information on Directly Observed Therapy		Percent of Cases by Administration of Therapy ²	
			No.	%	DOT Only	Both DOT and Self-Administered
United States	19,753	18,927	18,397	97.2	46.9	23.7
Alabama	405	388	388	100.0	81.7	15.2
Alaska	78	75	75	100.0	78.7	13.3
Arizona	296	279	277	99.3	58.1	12.3
Arkansas	200	187	179	95.7	43.0	15.1
California	4,044	3,902	3,766	96.5	43.4	19.4
Colorado	93	90	88	97.8	72.7	17.0
Connecticut	128	121	121	100.0	57.0	3.3
Delaware	39	37	37	100.0	45.9	24.3
District of Columbia	110	106	106	100.0	36.8	24.5
Florida	1,392	1,316	1,289	97.9	42.1	37.9
Georgia	695	678	660	97.3	51.4	32.3
Hawaii	165	161	161	100.0	58.4	13.0
Idaho	15	15	13	86.7	53.8	38.5
Illinois	966	907	881	97.1	45.5	11.8
Indiana	168	160	160	100.0	40.6	8.8
Iowa	74	73	68	93.2	39.7	23.5
Kansas	78	76	76	100.0	76.3	14.5
Kentucky	184	174	172	98.9	49.4	29.7
Louisiana	406	378	316	83.6	57.9	28.8
Maine	21	21	21	100.0	52.4	4.8
Maryland	339	330	329	99.7	87.2	3.6
Massachusetts	268	264	260	98.5	34.2	15.0
Michigan	372	352	352	100.0	11.9	18.2
Minnesota	161	159	151	95.0	42.4	26.5
Mississippi	245	239	238	99.6	99.6	0.4
Missouri	248	237	236	99.6	59.3	20.8
Montana	18	18	18	100.0	55.6	22.2
Nebraska	22	21	21	100.0	14.3	9.5
Nevada	112	101	93	92.1	25.8	12.9
New Hampshire	17	17	17	100.0	11.8	29.4
New Jersey	718	703	689	98.0	11.5	43.4
New Mexico	72	70	70	100.0	38.6	25.7
New York State ³	526	505	502	99.4	66.5	15.7
New York City	1,704	1,632	1,627	99.7	1.7	61.6
North Carolina	463	445	438	98.4	70.8	18.5
North Dakota	12	12	12	100.0	66.7	8.3
Ohio	286	270	270	100.0	57.4	15.2
Oklahoma	211	203	195	96.1	63.6	1.5
Oregon	161	158	158	100.0	60.1	19.6
Pennsylvania	524	498	469	94.2	47.8	15.4
Rhode Island	40	39	38	97.4	100.0	0.0
South Carolina	328	315	297	94.3	80.5	7.7
South Dakota	19	18	18	100.0	55.6	5.6
Tennessee	468	442	425	96.2	26.8	38.8
Texas	1,980	1,899	1,795	94.5	69.9	17.1
Utah	36	34	33	97.1	63.6	12.1
Vermont	6	6	6	100.0	33.3	16.7
Virginia	349	326	319	97.9	53.3	6.6
Washington	305	292	290	99.3	62.8	12.4
West Virginia	54	48	47	97.9	14.9	8.5
Wisconsin	130	128	128	100.0	53.9	10.2
Wyoming	2	2	2	100.0	0.0	0.0
American Samoa ⁴	...	...	...	...	...	...
Fed. States of Micronesia ⁴	...	...	...	...	...	...
Guam ⁴	...	...	...	...	...	...
N. Mariana Islands ⁴	94	92	89	96.7	97.8	1.1
Puerto Rico ⁴	257	230	228	99.1	46.9	5.3
Republic of Palau ⁴	17	17	15	88.2	33.3	60.0
U.S. Virgin Islands ⁴	...	...	...	...	...	...

1. Includes patients alive at diagnosis with an initial drug regimen of one or more drugs prescribed.

2. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information reported for >75% of cases.

3. Excludes New York City.

4. Not included in U.S. totals.

Ellipses indicate data not available.

Table 35. Completion of Tuberculosis Therapy (COT): 59 Reporting Areas, 1997

Reporting Area	Total Cases	Therapy ≤1 Year Indicated ¹			Therapy >1 Year Indicated ²		Overall	
		No. ³	COT ≤1 Year(%)	COT(%)	No. ³	COT(%)	No. ³	COT(%)
United States	19,753	16,884	77.2	90.0	297	73.7	17,181	89.7
Alabama	405	338	82.5	94.1	4	75.0	342	93.9
Alaska	78	72	91.7	98.6	0	...	72	98.6
Arizona	296	245	75.5	88.6	6	66.7	251	88.0
Arkansas	200	170	86.5	91.8	1	100.0	171	91.8
California	4,044	3,559	76.5	90.8	64	79.7	3,623	90.6
Colorado	93	78	84.6	89.7	4	75.0	82	89.0
Connecticut	128	110	89.1	95.5	1	100.0	111	95.5
Delaware	39	34	85.3	91.2	0	...	34	91.2
District of Columbia	110	88	65.9	85.2	2	50.0	90	84.4
Florida	1,392	1,152	77.7	90.7	22	86.4	1,174	90.6
Georgia	695	597	78.9	93.6	12	66.7	609	93.1
Hawaii	165	146	89.7	93.8	0	...	146	93.8
Idaho	15	15	—	—	0	...	15	—
Illinois	966	806	76.8	88.7	21	81.0	827	88.5
Indiana	168	138	82.6	88.4	0	...	138	88.4
Iowa	74	69	76.8	81.2	0	...	69	81.2
Kansas	78	67	71.6	79.1	1	100.0	68	79.4
Kentucky	184	154	85.1	96.1	0	...	154	96.1
Louisiana	406	341	—	—	6	—	347	—
Maine	21	19	78.9	84.2	0	...	19	84.2
Maryland	339	291	85.2	93.5	1	100.0	292	93.5
Massachusetts	268	242	79.8	90.9	8	100.0	250	91.2
Michigan	372	311	78.1	89.7	2	50.0	313	89.5
Minnesota	161	146	85.6	95.9	2	100.0	148	95.9
Mississippi	245	212	89.6	95.3	1	100.0	213	95.3
Missouri	248	204	84.8	93.6	3	100.0	207	93.7
Montana	18	17	88.2	100.0	0	...	17	100.0
Nebraska	22	17	64.7	76.5	0	...	17	76.5
Nevada	112	90	68.9	78.9	1	100.0	91	79.1
New Hampshire	17	16	75.0	87.5	0	...	16	87.5
New Jersey	718	635	71.3	89.4	14	64.3	649	88.9
New Mexico	72	64	87.5	98.4	0	...	64	98.4
New York State ⁴	526	458	69.9	86.9	7	71.4	465	86.7
New York City	1,704	1,403	74.3	86.8	50	40.0	1,453	85.2
North Carolina	463	394	87.1	95.4	6	83.3	400	95.3
North Dakota	12	7	85.7	100.0	0	...	7	100.0
Ohio	286	236	80.9	92.8	1	100.0	237	92.8
Oklahoma	211	174	81.0	92.5	4	100.0	178	92.7
Oregon	161	149	83.9	89.3	2	50.0	151	88.7
Pennsylvania	524	431	74.7	89.3	3	66.7	434	89.2
Rhode Island	40	36	83.3	91.7	0	...	36	91.7
South Carolina	328	275	62.5	86.2	1	100.0	276	86.2
South Dakota	19	18	88.9	100.0	0	...	18	100.0
Tennessee	468	375	83.7	96.3	4	100.0	379	96.3
Texas	1,980	1,711	75.2	89.1	32	84.4	1,743	89.0
Utah	36	33	72.7	97.0	0	...	33	97.0
Vermont	6	5	80.0	100.0	0	...	5	100.0
Virginia	349	301	76.1	86.4	4	50.0	305	85.9
Washington	305	272	82.4	90.8	5	80.0	277	90.6
West Virginia	54	43	72.1	79.1	0	...	43	79.1
Wisconsin	130	118	86.4	97.5	2	100.0	120	97.5
Wyoming	2	2	100.0	100.0	0	...	2	100.0
American Samoa ⁵	...	...	...	...	...	...	...	...
Fed. States of Micronesia ⁵	...	...	...	...	...	...	...	...
Guam ⁵	...	...	...	...	...	...	...	...
N. Mariana Islands ⁵	94	88	71.6	71.6	4	25.0	92	69.6
Puerto Rico ⁵	257	183	87.4	94.0	5	40.0	188	92.6
Republic of Palau ⁵	17	16	—	—	0	...	16	—
U.S. Virgin Islands ⁵	...	...	...	...	...	...	...	...

1. Initial isolate susceptible to rifampin (n=12,776) or susceptibility unknown (n=4,802); culture-negative (n=2,673); culture status unknown (n=954); age unknown (n=1).

2. Initial isolate rifampin resistant, or pediatric (aged <15) case with meningeal, bone or joint, or miliary disease.

3. Number of cases in persons alive at diagnosis, with initial drug regimen of one or more drugs prescribed, who did not die during therapy. Percentage for U.S. based on 52 reporting areas (50 states, New York City, and the District of Columbia). Percentages shown only for reporting areas with information on reason therapy stopped for ≥90% of cases.

4. Excludes New York City.

5. Not included in U.S. totals.

Ellipses indicate data not available.

Note: See Technical Notes (Appendix A) for description of COT calculation.

Table 36. Tuberculosis Cases in Selected Cities: 1999 and 1998

City	Cases ¹	
	1999	1998
Albuquerque, NM	13	16
Anaheim, Calif	37	48
Arlington, Tex	19	21
Atlanta, Ga	112	129
Austin, Tex	70	64
Baltimore, Md	77	84
Birmingham, Ala	51	65
Boston, Mass	77	89
Buffalo, NY	9	16
Charlotte, NC	73	55
Chicago, Ill	463	473
Cincinnati, Ohio	20	14
Cleveland, Ohio	78	45
Colorado Springs, Colo	9	4
Columbus, Ohio	52	40
Corpus Christi, Tex	26	35
Dallas, Tex	162	199
Denver, Colo	39	33
Detroit, Mich	134	142
El Paso, Tex	60	74
Fort Worth, Tex	74	86
Fresno, Calif	77	87
Honolulu, Hawaii	88	77
Houston, Tex	416	424
Indianapolis, Ind	35	41
Jacksonville, Fla	89	101
Kansas City, Mo	42	40
Las Vegas, Nev	56	92
Long Beach, Calif	88	57
Los Angeles, Calif	504	544
Louisville, Ky	30	35
Memphis, Tenn	94	109
Mesa, Ariz	9	10
Miami, Fla	92	101
Milwaukee, Wis	46	38
Minneapolis, Minn	85	63
Nashville, Tenn	50	70
New Orleans, La	67	84
New York, NY	1,460	1,558
Newark, NJ	58	90
Norfolk, Va	20	16
Oakland, Calif	114	99
Oklahoma City, Okla	53	43
Omaha, Neb	4	12
Philadelphia, Pa	182	179
Phoenix, Ariz	96	93
Pittsburgh, Pa	17	26
Portland, Ore	53	70
Sacramento, Calif	72	92
St. Louis, Mo	41	61
St. Paul, Minn	22	22
San Antonio, Tex	91	87
San Diego, Calif	162	194
San Francisco, Calif	235	207
San Jose, Calif	176	180
Santa Ana, Calif	47	57
Seattle, Wash	74	84
Tampa, Fla	84	66
Toledo, Ohio	6	7
Tucson, Ariz	38	42
Tulsa, Okla	37	27
Virginia Beach, Va	15	8
Washington, DC	70	107
Wichita, Kan	25	20
Total - 64 Cities	6,775	7,152
San Juan, Puerto Rico	31	36

1. Case counts are based on verified cases in persons residing within city limits. Residence within city limits was determined by the health department.

Table 37. Tuberculosis Cases and Case Rates per 100,000 Population: Metropolitan Statistical Areas with $\geq 500,000$ Population, 1999 and 1998

Metropolitan Statistical Area	Cases		Case Rates		Population Estimates
	1999	1998	1999	1998	1999
Akron, Ohio	14	7	2.0	1.0	689,435
Albany-Schenectady, NY	19	14	2.2	1.6	869,474
Albuquerque, NM	16	25	2.4	3.7	678,820
Allentown, Pa	17	22	2.7	3.6	618,350
Ann Arbor, Mich	15	4	2.7	0.7	557,349
Atlanta, Ga	343	334	8.9	8.9	3,857,097
Austin, Tex	90	92	7.9	8.3	1,146,050
Bakersfield, Calif	62	48	9.6	7.6	642,495
Baltimore, Md	134	160	5.4	6.4	2,491,254
Baton Rouge, La	39	27	6.7	4.7	578,946
Bergen-Passaic, NJ	104	117	7.7	8.7	1,342,116
Birmingham, Ala	77	89	8.4	9.8	915,077
Boston, Mass	267	274	4.5	4.7	5,901,589
Buffalo, NY	25	35	2.2	3.0	1,142,121
Charleston, SC	28	37	5.1	6.8	552,803
Charlotte, NC	103	107	7.3	7.7	1,417,217
Chicago, Ill	717	730	9.0	9.2	8,008,507
Cincinnati, Ohio	42	30	2.6	1.9	1,627,509
Cleveland, Ohio	109	77	4.9	3.5	2,221,181
Columbia, SC	30	25	5.8	4.9	516,251
Columbus, Ohio	62	47	4.2	3.2	1,489,487
Dallas, Tex	255	291	7.8	9.1	3,280,310
Dayton, Ohio	16	17	1.7	1.8	958,698
Denver, Colo	65	54	3.3	2.8	1,978,991
Detroit, Mich	231	261	5.2	5.8	4,474,614
El Paso, Tex	61	81	8.7	11.5	701,908
Fort Lauderdale, Fla	143	135	9.3	9.0	1,535,468
Fort Worth, Tex	117	117	7.2	7.3	1,629,213
Fresno, Calif	110	121	12.5	13.9	879,829
Gary, Ind	22	23	3.5	3.7	628,377
Grand Rapids, Mich	32	32	3.0	3.1	1,052,092
Greensboro, NC	68	65	5.8	5.6	1,179,384
Greenville, SC	34	36	3.7	3.9	929,565
Harrisburg, Pa	11	25	1.8	4.1	618,375
Hartford, Conn	48	47	4.3	4.2	1,113,800
Honolulu, Hawaii	147	149	17.0	17.1	864,571
Houston, Tex	482	482	12.0	12.3	4,010,969
Indianapolis, Ind	50	56	3.3	3.7	1,536,665
Jacksonville, Fla	105	117	9.9	11.2	1,056,332
Jersey City, NJ	84	88	15.2	15.8	552,819
Kansas City, Mo	63	62	3.6	3.6	1,755,899
Knoxville, Tenn	42	45	6.2	6.8	672,087
Las Vegas, Nev	68	109	4.9	8.2	1,381,086
Little Rock, Ark	24	20	4.3	3.6	559,078
Los Angeles, Calif	1,265	1,372	13.6	14.9	9,329,989
Louisville, Ky	47	51	4.7	5.1	1,005,849
McAllen, Tex	75	80	14.0	15.3	534,907
Memphis, Tenn	97	131	8.8	12.0	1,105,058
Miami, Fla	273	288	12.5	13.4	2,175,634
Middlesex, NJ	82	94	7.3	8.4	1,130,592

Table 37. (Cont'd) Tuberculosis Cases and Case Rates per 100,000 Population: Metropolitan Statistical Areas with $\geq 500,000$ Population, 1999 and 1998

Metropolitan Statistical Area	Cases		Case Rates		Population Estimates
	1999	1998	1999	1998	1999
Milwaukee, Wis	59	54	4.0	3.7	1,462,422
Minneapolis-St. Paul, Minn	161	124	5.6	4.4	2,872,109
Mobile, Ala	34	43	6.3	8.1	535,472
Monmouth-Ocean City, NJ	33	40	3.0	3.7	1,108,977
Nashville, Tenn	85	97	7.3	8.4	1,171,755
Nassau-Suffolk, NY	129	154	4.8	5.8	2,688,904
New Haven, Conn	65	76	4.0	4.7	1,634,542
New Orleans, La	122	149	9.3	11.4	1,305,479
New York, NY	1,540	1,657	17.7	19.1	8,712,600
Newark, NJ	181	209	9.3	10.7	1,954,671
Norfolk, Va	62	65	4.0	4.2	1,562,635
Oakland, Calif	338	332	14.4	14.3	2,348,723
Oklahoma City, Okla	79	77	7.6	7.4	1,046,283
Omaha, Neb	9	20	1.3	2.9	698,875
Orange County, Calif	245	298	8.9	10.9	2,760,948
Orlando, Fla	154	163	10.0	10.8	1,535,004
Philadelphia, Pa	299	286	6.0	5.8	4,949,867
Phoenix, Ariz	159	145	5.3	4.9	3,013,696
Pittsburgh, Pa	62	52	2.7	2.2	2,331,336
Portland, Ore	87	118	4.7	6.5	1,845,840
Providence, RI	52	61	5.7	6.7	907,795
Raleigh-Durham, NC	79	82	7.1	7.6	1,105,535
Richmond, Va	28	37	2.9	3.9	961,416
Riverside-San Bernardino, Calif	192	175	6.0	5.6	3,200,587
Rochester, NY	30	44	2.8	4.1	1,079,073
Sacramento, Calif	101	120	6.4	7.8	1,585,429
St. Louis, Mo	98	110	3.8	4.3	2,569,029
Salt Lake City, Utah	32	42	2.5	3.3	1,275,076
San Antonio, Tex	100	98	6.4	6.4	1,564,949
San Diego, Calif	297	339	10.5	12.2	2,820,844
San Francisco, Calif	307	307	18.2	18.2	1,685,647
San Jose, Calif	244	251	14.8	15.3	1,647,419
Sarasota, Fla	19	35	3.5	6.4	550,077
Scranton, Pa	23	14	3.8	2.3	611,492
Seattle, Wash	127	136	5.4	5.9	2,334,934
Springfield, Mass	12	12	2.0	2.0	589,171
Stockton, Calif	74	65	13.1	11.8	563,183
Syracuse, NY	37	23	5.0	3.1	732,920
Tacoma, Wash	43	36	6.2	5.3	688,807
Tampa-St. Petersburg, Fla	156	152	6.8	6.7	2,278,169
Toledo, Ohio	10	8	1.6	1.3	608,976
Tucson, Ariz	46	51	5.7	6.4	803,618
Tulsa, Okla	46	34	5.9	4.4	786,117
Vallejo, Calif	35	...	6.9	...	506,685
Ventura, Calif	62	57	8.3	7.8	745,063
Washington, DC	366	398	7.7	8.5	4,739,999
West Palm Beach, Fla	108	83	10.3	8.0	1,049,420
Wichita, Kan	29	22	5.3	4.0	548,714
Wilmington, Del	15	12	2.6	2.1	571,420
Youngstown, Ohio	10	17	1.7	2.9	589,236
Total - 100 Areas	13,111	13,730	7.7	8.1	171,136,225
San Juan, Puerto Rico	79	79	3.9	3.9	2,018,359

Note: In 1999, there were 100 metropolitan statistical areas with populations of 500,000 or more. In 1998, Vallejo, California, metropolitan statistical area had a population under 500,000.

Ellipses indicate data not applicable.

Table 38. Tuberculosis Cases by Form of Disease: Metropolitan Statistical Areas with $\geq 500,000$ Population, 1999

Metropolitan Statistical Area	Total Cases	Pulmonary ¹		Extrapulmonary ²		Cases with Both Pulmonary and Extrapulmonary Disease		
		No.	%	No.	%	Total ³		Miliary No.
						No.	%	
Akron, Ohio	14	10	71.4	4	28.6	0	0.0	0
Albany-Schenectady, NY	19	9	47.4	7	36.8	3	15.8	0
Albuquerque, NM	16	15	93.8	1	6.3	0	0.0	0
Allentown, Pa	17	16	94.1	1	5.9	0	0.0	0
Ann Arbor, Mich	15	11	73.3	3	20.0	0	0.0	0
Atlanta, Ga	343	249	72.6	71	20.7	23	6.7	6
Austin, Tex	90	66	73.3	17	18.9	7	7.8	0
Bakersfield, Calif	62	46	74.2	12	19.4	4	6.5	2
Baltimore, Md	134	92	68.7	31	23.1	11	8.2	4
Baton Rouge, La	39	29	74.4	8	20.5	2	5.1	0
Bergen-Passaic, NJ	104	60	57.7	35	33.7	9	8.7	1
Birmingham, Ala	77	65	84.4	12	15.6	0	0.0	0
Boston, Mass	267	147	55.1	89	33.3	31	11.6	15
Buffalo, NY	25	15	60.0	4	16.0	6	24.0	0
Charleston, SC	28	16	57.1	7	25.0	5	17.9	0
Charlotte, NC	103	82	79.6	17	16.5	4	3.9	2
Chicago, Ill	717	535	74.6	163	22.7	19	2.6	7
Cincinnati, Ohio	42	34	81.0	5	11.9	3	7.1	1
Cleveland, Ohio	109	63	57.8	33	30.3	13	11.9	7
Columbia, SC	30	21	70.0	7	23.3	2	6.7	0
Columbus, Ohio	62	48	77.4	13	21.0	0	0.0	0
Dallas, Tex	255	187	73.3	44	17.3	24	9.4	2
Dayton, Ohio	16	10	62.5	5	31.3	1	6.3	0
Denver, Colo	65	37	56.9	17	26.2	11	16.9	4
Detroit, Mich	231	153	66.2	54	23.4	24	10.4	2
El Paso, Tex	61	34	55.7	22	36.1	5	8.2	1
Fort Lauderdale, Fla	143	101	70.6	34	23.8	8	5.6	0
Fort Worth, Tex	117	88	75.2	21	17.9	8	6.8	1
Fresno, Calif	110	89	80.9	12	10.9	9	8.2	0
Gary, Ind	22	15	68.2	6	27.3	1	4.5	1
Grand Rapids, Mich	32	19	59.4	9	28.1	4	12.5	1
Greensboro, NC	68	52	76.5	11	16.2	5	7.4	3
Greenville, SC	34	27	79.4	3	8.8	4	11.8	3
Harrisburg, Pa	11	8	72.7	3	27.3	0	0.0	0
Hartford, Conn	48	34	70.8	12	25.0	2	4.2	1
Honolulu, Hawaii	147	126	85.7	18	12.2	3	2.0	0
Houston, Tex	482	326	67.6	118	24.5	38	7.9	4
Indianapolis, Ind	50	40	80.0	7	14.0	3	6.0	2
Jacksonville, Fla	105	90	85.7	13	12.4	2	1.9	1
Jersey City, NJ	84	62	73.8	14	16.7	8	9.5	1
Kansas City, Mo	63	41	65.1	18	28.6	4	6.3	0
Knoxville, Tenn	42	29	69.0	8	19.0	5	11.9	1
Las Vegas, Nev	68	54	79.4	13	19.1	1	1.5	0
Little Rock, Ark	24	18	75.0	4	16.7	2	8.3	0
Los Angeles, Calif	1,265	902	71.3	253	20.0	110	8.7	28
Louisville, Ky	47	39	83.0	8	17.0	0	0.0	0
McAllen, Tex	75	64	85.3	8	10.7	3	4.0	1
Memphis, Tenn	97	68	70.1	14	14.4	15	15.5	3
Miami, Fla	273	216	79.1	44	16.1	13	4.8	8
Middlesex, NJ	82	51	62.2	27	32.9	4	4.9	0

1. Includes cases with pulmonary listed as major site of disease and no additional site of disease.

2. Includes cases with pleural, lymphatic, bone and/or joint, meningeal, peritoneal, or other site, excluding pulmonary, listed as major site of disease.

3. Includes miliary cases.

Table 38. (Cont'd) Tuberculosis Cases by Form of Disease: Metropolitan Statistical Areas with $\geq 500,000$ Population, 1999

Metropolitan Statistical Area	Total Cases	Pulmonary ¹		Extrapulmonary ²		Cases with Both Pulmonary and Extrapulmonary Disease		
		No.	%	No.	%	Total ³	Miliary	No.
Milwaukee, Wis	59	35	59.3	20	33.9	4	6.8	1
Minneapolis-St. Paul, Minn	161	100	62.1	46	28.6	15	9.3	5
Mobile, Ala	34	26	76.5	5	14.7	3	8.8	0
Monmouth-Ocean City, NJ	33	21	63.6	7	21.2	5	15.2	2
Nashville, Tenn	85	57	67.1	17	20.0	11	12.9	1
Nassau-Suffolk, NY	129	99	76.7	24	18.6	6	4.7	0
New Haven, Conn	65	40	61.5	19	29.2	6	9.2	2
New Orleans, La	122	100	82.0	12	9.8	10	8.2	2
New York, NY	1,540	1,036	67.3	302	19.6	201	13.1	44
Newark, NJ	181	126	69.6	35	19.3	20	11.0	5
Norfolk, Va	62	51	82.3	8	12.9	3	4.8	0
Oakland, Calif	338	261	77.2	57	16.9	20	5.9	7
Oklahoma City, Okla	79	61	77.2	13	16.5	5	6.3	2
Omaha, Neb	9	5	55.6	4	44.4	0	0.0	0
Orange County, Calif	245	168	68.6	55	22.4	22	9.0	5
Orlando, Fla	154	121	78.6	21	13.6	12	7.8	1
Philadelphia, Pa	299	193	64.5	80	26.8	25	8.4	6
Phoenix, Ariz	159	139	87.4	13	8.2	7	4.4	1
Pittsburgh, Pa	62	39	62.9	16	25.8	7	11.3	2
Portland, Ore	87	58	66.7	23	26.4	6	6.9	1
Providence, RI	52	29	55.8	19	36.5	4	7.7	2
Raleigh-Durham, NC	79	57	72.2	16	20.3	6	7.6	3
Richmond, Va	28	19	67.9	8	28.6	1	3.6	0
Riverside-San Bernardino, Calif	192	155	80.7	30	15.6	7	3.6	3
Rochester, NY	30	15	50.0	10	33.3	5	16.7	0
Sacramento, Calif	101	80	79.2	16	15.8	5	5.0	1
St. Louis, Mo	98	77	78.6	13	13.3	8	8.2	1
Salt Lake City, Utah	32	20	62.5	8	25.0	4	12.5	1
San Antonio, Tex	100	79	79.0	10	10.0	10	10.0	1
San Diego, Calif	297	195	65.7	75	25.3	27	9.1	5
San Francisco, Calif	307	238	77.5	50	16.3	18	5.9	5
San Jose, Calif	244	159	65.2	77	31.6	8	3.3	5
Sarasota, Fla	19	17	89.5	1	5.3	1	5.3	1
Scranton, Pa	23	17	73.9	4	17.4	2	8.7	0
Seattle, Wash	127	66	52.0	36	28.3	25	19.7	5
Springfield, Mass	12	10	83.3	2	16.7	0	0.0	0
Stockton, Calif	74	57	77.0	12	16.2	5	6.8	3
Syracuse, NY	37	27	73.0	7	18.9	3	8.1	1
Tacoma, Wash	43	28	65.1	11	25.6	4	9.3	0
Tampa-St. Petersburg, Fla	156	121	77.6	29	18.6	6	3.8	2
Toledo, Ohio	10	6	60.0	1	10.0	3	30.0	0
Tucson, Ariz	46	36	78.3	7	15.2	3	6.5	0
Tulsa, Okla	46	32	69.6	10	21.7	4	8.7	1
Vallejo, Calif	35	29	82.9	4	11.4	2	5.7	0
Ventura, Calif	62	44	71.0	15	24.2	3	4.8	0
Washington, DC	366	257	70.2	83	22.7	26	7.1	13
West Palm Beach, Fla	108	79	73.1	22	20.4	7	6.5	1
Wichita, Kan	29	21	72.4	7	24.1	1	3.4	0
Wilmington, Del	15	10	66.7	2	13.3	3	20.0	2
Youngstown, Ohio	10	4	40.0	6	60.0	0	0.0	0
Total - 100 Areas	13,111	9,329	71.2	2,728	20.8	1,048	8.0	256
San Juan, Puerto Rico	79	68	86.1	9	11.4	2	2.5	1

1. Includes cases with pulmonary listed as major site of disease and no additional site of disease.

2. Includes cases with pleural, lymphatic, bone and/or joint, meningeal, peritoneal, or other site, excluding pulmonary, listed as major site of disease.

3. Includes miliary cases.

Note: 6 (<0.1%) cases had missing and/or unknown site of disease.

**Table 39. Tuberculosis Cases by Age Group: Metropolitan Statistical Areas with
≥500,000 Population, 1999**

Metropolitan Statistical Area	Total Cases	Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+	Unknown or Missing
Akron, Ohio	14	0	0	0	4	5	5	0
Albany-Schenectady, NY	19	0	1	1	6	5	6	0
Albuquerque, NM	16	1	1	2	3	3	6	0
Allentown, Pa	17	0	0	1	5	1	10	0
Ann Arbor, Mich	15	1	0	1	9	3	1	0
Atlanta, Ga	343	21	13	44	153	84	28	0
Austin, Tex	90	9	1	15	33	26	6	0
Bakersfield, Calif	62	3	2	8	20	19	10	0
Baltimore, Md	134	4	1	13	41	39	36	0
Baton Rouge, La	39	0	1	0	15	16	7	0
Bergen-Passaic, NJ	104	3	1	6	48	21	25	0
Birmingham, Ala	77	0	1	2	15	30	29	0
Boston, Mass	267	5	4	36	114	59	49	0
Buffalo, NY	25	0	0	2	7	9	7	0
Charleston, SC	28	0	0	3	7	12	6	0
Charlotte, NC	103	3	0	9	48	30	13	0
Chicago, Ill	717	24	20	50	268	215	140	0
Cincinnati, Ohio	42	1	1	1	7	19	13	0
Cleveland, Ohio	109	2	0	7	27	29	44	0
Columbia, SC	30	0	1	4	12	8	5	0
Columbus, Ohio	62	0	1	11	23	17	10	0
Dallas, Tex	255	10	2	25	107	79	32	0
Dayton, Ohio	16	1	0	1	5	3	6	0
Denver, Colo	65	7	4	5	22	15	12	0
Detroit, Mich	231	5	8	11	74	71	62	0
El Paso, Tex	61	3	3	2	14	13	26	0
Fort Lauderdale, Fla	143	6	4	9	63	44	17	0
Fort Worth, Tex	117	2	1	13	43	39	19	0
Fresno, Calif	110	5	16	12	35	25	17	0
Gary, Ind	22	0	1	0	4	7	10	0
Grand Rapids, Mich	32	3	1	6	8	8	6	0
Greensboro, NC	68	1	3	12	17	23	12	0
Greenville, SC	34	0	0	2	13	15	4	0
Harrisburg, Pa	11	1	0	0	2	4	4	0
Hartford, Conn	48	3	2	9	19	11	4	0
Honolulu, Hawaii	147	0	3	15	38	40	51	0
Houston, Tex	482	23	13	35	202	149	60	0
Indianapolis, Ind	50	6	1	5	16	8	14	0
Jacksonville, Fla	105	2	0	3	47	30	23	0
Jersey City, NJ	84	3	3	16	29	24	9	0
Kansas City, Mo	63	1	2	4	22	23	11	0
Knoxville, Tenn	42	2	0	1	11	16	12	0
Las Vegas, Nev	68	2	2	6	18	28	12	0
Little Rock, Ark	24	1	1	0	5	7	10	0
Los Angeles, Calif	1,265	47	29	120	410	363	296	0
Louisville, Ky	47	2	0	1	21	12	11	0
McAllen, Tex	75	4	4	10	14	24	19	0
Memphis, Tenn	97	10	3	10	45	19	10	0
Miami, Fla	273	4	1	20	125	88	35	0
Middlesex, NJ	82	0	0	12	30	19	21	0

Table 39. (Cont'd) Tuberculosis Cases by Age Group: Metropolitan Statistical Areas with ≥500,000 Population, 1999

Metropolitan Statistical Area	Total Cases	Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65+	Unknown or Missing
Milwaukee, Wis	59	2	2	6	22	11	16	0
Minneapolis-St. Paul, Minn	161	4	12	51	52	28	14	0
Mobile, Ala	34	0	0	0	10	14	10	0
Monmouth-Ocean City, NJ	33	1	0	4	7	9	12	0
Nashville, Tenn	85	1	1	6	33	26	18	0
Nassau-Suffolk, NY	129	2	3	14	56	28	26	0
New Haven, Conn	65	1	0	5	23	25	11	0
New Orleans, La	122	5	3	7	44	43	20	0
New York, NY	1,540	35	38	133	705	403	226	0
Newark, NJ	181	5	6	15	81	51	23	0
Norfolk, Va	62	2	0	8	17	18	17	0
Oakland, Calif	338	17	11	40	94	91	85	0
Oklahoma City, Okla	79	4	4	7	32	22	10	0
Omaha, Neb	9	0	0	1	6	1	1	0
Orange County, Calif	245	5	5	27	95	52	61	0
Orlando, Fla	154	4	0	5	70	51	24	0
Philadelphia, Pa	299	9	7	20	94	90	79	0
Phoenix, Ariz	159	4	2	22	69	30	32	0
Pittsburgh, Pa	62	1	2	3	14	11	31	0
Portland, Ore	87	5	3	10	31	23	15	0
Providence, RI	52	3	4	7	11	14	13	0
Raleigh-Durham, NC	79	2	0	8	26	22	21	0
Richmond, Va	28	0	1	2	4	8	13	0
Riverside-San Bernardino, Calif	192	10	7	7	64	61	43	0
Rochester, NY	30	1	0	2	14	6	7	0
Sacramento, Calif	101	0	5	6	29	38	23	0
St. Louis, Mo	98	7	3	4	41	21	22	0
Salt Lake City, Utah	32	1	1	2	9	12	7	0
San Antonio, Tex	100	1	0	10	33	32	24	0
San Diego, Calif	297	18	23	24	99	65	68	0
San Francisco, Calif	307	7	4	24	112	68	92	0
San Jose, Calif	244	7	4	24	92	58	59	0
Sarasota, Fla	19	1	0	0	10	6	2	0
Scranton, Pa	23	1	0	2	1	6	13	0
Seattle, Wash	127	1	1	22	50	26	27	0
Springfield, Mass	12	0	0	0	4	4	4	0
Stockton, Calif	74	3	2	7	17	30	15	0
Syracuse, NY	37	3	5	5	8	8	8	0
Tacoma, Wash	43	2	0	8	7	14	12	0
Tampa-St. Petersburg, Fla	156	5	1	6	50	60	34	0
Toledo, Ohio	10	1	0	1	3	4	1	0
Tucson, Ariz	46	0	0	1	19	12	14	0
Tulsa, Okla	46	4	1	4	17	11	9	0
Vallejo, Calif	35	5	1	7	7	11	4	0
Ventura, Calif	62	5	2	3	17	18	17	0
Washington, DC	366	7	7	48	172	70	62	0
West Palm Beach, Fla	108	2	2	9	48	31	16	0
Wichita, Kan	29	3	2	3	11	6	4	0
Wilmington, Del	15	0	1	0	8	2	4	0
Youngstown, Ohio	10	0	0	0	1	1	8	0
Total - 100 Areas	13,111	438	332	1,211	4,863	3,609	2,658	0
San Juan, Puerto Rico	79	1	0	4	32	22	20	0

**Table 40. Tuberculosis Cases by Race/Ethnicity: Metropolitan Statistical Areas with
≥500,000 Population, 1999**

Metropolitan Statistical Area	Total Cases	White, non-Hispanic	Black, non-Hispanic	Hispanic ¹	American Indian or Alaskan Native	Asian or Pacific Islander	Unknown or Missing
Akron, Ohio	14	6	8	0	0	0	0
Albany-Schenectady, NY	19	8	8	0	0	3	0
Albuquerque, NM	16	1	0	9	6	0	0
Allentown, Pa	17	9	3	2	0	3	0
Ann Arbor, Mich	15	5	5	1	0	4	0
Atlanta, Ga	343	49	218	32	0	37	7
Austin, Tex	90	18	25	34	0	13	0
Bakersfield, Calif	62	14	7	32	1	8	0
Baltimore, Md	134	27	76	7	0	24	0
Baton Rouge, La	39	14	20	0	0	5	0
Bergen-Passaic, NJ	104	20	18	27	0	39	0
Birmingham, Ala	77	24	50	1	0	2	0
Boston, Mass	267	74	72	34	0	86	1
Buffalo, NY	25	11	9	2	0	3	0
Charleston, SC	28	6	18	1	0	3	0
Charlotte, NC	103	15	63	16	1	8	0
Chicago, Ill	717	128	323	132	0	130	4
Cincinnati, Ohio	42	20	19	2	0	1	0
Cleveland, Ohio	109	31	64	4	0	10	0
Columbia, SC	30	10	16	0	0	4	0
Columbus, Ohio	62	16	27	2	1	15	1
Dallas, Tex	255	59	91	64	0	41	0
Dayton, Ohio	16	8	5	1	0	2	0
Denver, Colo	65	13	11	23	1	17	0
Detroit, Mich	231	57	125	10	2	35	2
El Paso, Tex	61	6	0	54	0	1	0
Fort Lauderdale, Fla	143	28	84	20	0	11	0
Fort Worth, Tex	117	41	34	25	1	16	0
Fresno, Calif	110	14	13	56	1	26	0
Gary, Ind	22	11	9	1	1	0	0
Grand Rapids, Mich	32	6	3	9	0	14	0
Greensboro, NC	68	16	28	13	2	9	0
Greenville, SC	34	8	20	1	0	5	0
Harrisburg, Pa	11	8	0	0	0	3	0
Hartford, Conn	48	8	16	12	0	12	0
Honolulu, Hawaii	147	5	1	4	0	133	4
Houston, Tex	482	81	170	169	0	62	0
Indianapolis, Ind	50	19	20	5	0	6	0
Jacksonville, Fla	105	37	54	0	1	13	0
Jersey City, NJ	84	7	25	30	0	22	0
Kansas City, Mo	63	9	32	8	0	14	0
Knoxville, Tenn	42	31	7	1	0	3	0
Las Vegas, Nev	68	15	9	15	0	28	1
Little Rock, Ark	24	16	7	0	0	1	0
Los Angeles, Calif	1,265	127	152	591	3	389	3
Louisville, Ky	47	24	17	3	0	3	0
McAllen, Tex	75	1	0	70	0	4	0
Memphis, Tenn	97	11	81	1	0	4	0
Miami, Fla	273	31	133	98	0	11	0
Middlesex, NJ	82	21	9	17	0	35	0

1. Persons of Hispanic origin may be of any race.

Table 40. (Cont'd) Tuberculosis Cases by Race/Ethnicity: Metropolitan Statistical Areas with ≥500,000 Population, 1999

Metropolitan Statistical Area	Total Cases	White, non-Hispanic	Black, non-Hispanic	Hispanic ¹	American Indian or Alaskan Native	Asian or Pacific Islander	Unknown or Missing
Milwaukee, Wis	59	17	19	6	0	17	0
Minneapolis-St. Paul, Minn	161	17	79	12	5	48	0
Mobile, Ala	34	13	16	0	1	4	0
Monmouth-Ocean City, NJ	33	13	4	6	0	10	0
Nashville, Tenn	85	33	43	5	0	4	0
Nassau-Suffolk, NY	129	31	32	44	0	22	0
New Haven, Conn	65	15	18	16	0	16	0
New Orleans, La	122	43	66	6	1	5	1
New York, NY	1,540	188	579	412	0	360	1
Newark, NJ	181	18	110	33	0	20	0
Norfolk, Va	62	18	29	4	0	11	0
Oakland, Calif	338	40	83	65	1	149	0
Oklahoma City, Okla	79	43	11	2	12	11	0
Omaha, Neb	9	6	1	1	0	1	0
Orange County, Calif	245	23	5	84	0	133	0
Orlando, Fla	154	43	89	17	0	5	0
Philadelphia, Pa	299	54	129	21	0	90	5
Phoenix, Ariz	159	53	11	70	12	13	0
Pittsburgh, Pa	62	37	11	0	0	14	0
Portland, Ore	87	24	8	18	0	37	0
Providence, RI	52	16	11	12	0	13	0
Raleigh-Durham, NC	79	21	41	7	0	9	1
Richmond, Va	28	8	11	0	0	9	0
Riverside-San Bernardino, Calif	192	35	19	86	1	51	0
Rochester, NY	30	9	11	4	0	6	0
Sacramento, Calif	101	22	10	8	2	50	9
St. Louis, Mo	98	24	56	3	1	13	1
Salt Lake City, Utah	32	8	3	6	6	9	0
San Antonio, Tex	100	20	7	70	0	3	0
San Diego, Calif	297	34	22	137	3	101	0
San Francisco, Calif	307	34	37	45	0	191	0
San Jose, Calif	244	12	6	40	0	186	0
Sarasota, Fla	19	5	6	7	0	1	0
Scranton, Pa	23	17	0	3	0	3	0
Seattle, Wash	127	31	26	14	3	53	0
Springfield, Mass	12	6	3	2	0	1	0
Stockton, Calif	74	13	3	20	0	38	0
Syracuse, NY	37	10	21	1	0	5	0
Tacoma, Wash	43	15	5	4	2	16	1
Tampa-St. Petersburg, Fla	156	70	53	14	0	19	0
Toledo, Ohio	10	3	5	2	0	0	0
Tucson, Ariz	46	19	3	18	3	3	0
Tulsa, Okla	46	23	9	6	6	2	0
Vallejo, Calif	35	3	10	5	0	17	0
Ventura, Calif	62	10	1	37	0	14	0
Washington, DC	366	61	147	71	0	86	1
West Palm Beach, Fla	108	26	66	14	0	2	0
Wichita, Kan	29	10	7	6	0	6	0
Wilmington, Del	15	5	2	2	0	6	0
Youngstown, Ohio	10	7	3	0	0	0	0
Total - 100 Areas	13,111	2,530	4,152	3,105	80	3,201	43
San Juan, Puerto Rico	79	0	0	78	0	0	1

1. Persons of Hispanic origin may be of any race.

Table 41. Tuberculosis Cases, U.S.-born Persons and Foreign-born Persons: Metropolitan Statistical Areas with $\geq 500,000$ Population, 1999

Metropolitan Statistical Area	Total Cases	U.S.-born Persons		Foreign-born Persons ¹		Unknown	
		No.	%	No.	%	No.	%
Akron, Ohio	14	13	92.9	1	7.1	0	0.0
Albany-Schenectady, NY	19	12	63.2	7	36.8	0	0.0
Albuquerque, NM	16	11	68.8	5	31.3	0	0.0
Allentown, Pa	17	11	64.7	6	35.3	0	0.0
Ann Arbor, Mich	15	5	33.3	10	66.7	0	0.0
Atlanta, Ga	343	239	69.7	96	28.0	8	2.3
Austin, Tex	90	47	52.2	43	47.8	0	0.0
Bakersfield, Calif	62	36	58.1	26	41.9	0	0.0
Baltimore, Md	134	96	71.6	38	28.4	0	0.0
Baton Rouge, La	39	32	82.1	7	17.9	0	0.0
Bergen-Passaic, NJ	104	35	33.7	69	66.3	0	0.0
Birmingham, Ala	77	74	96.1	3	3.9	0	0.0
Boston, Mass	267	86	32.2	181	67.8	0	0.0
Buffalo, NY	25	20	80.0	5	20.0	0	0.0
Charleston, SC	28	24	85.7	4	14.3	0	0.0
Charlotte, NC	103	79	76.7	24	23.3	0	0.0
Chicago, Ill	717	461	64.3	243	33.9	13	1.8
Cincinnati, Ohio	42	36	85.7	6	14.3	0	0.0
Cleveland, Ohio	109	86	78.9	23	21.1	0	0.0
Columbia, SC	30	26	86.7	4	13.3	0	0.0
Columbus, Ohio	62	33	53.2	29	46.8	0	0.0
Dallas, Tex	255	147	57.6	108	42.4	0	0.0
Dayton, Ohio	16	11	68.8	4	25.0	1	6.3
Denver, Colo	65	24	36.9	41	63.1	0	0.0
Detroit, Mich	231	182	78.8	48	20.8	1	0.4
El Paso, Tex	61	23	37.7	38	62.3	0	0.0
Fort Lauderdale, Fla	143	64	44.8	79	55.2	0	0.0
Fort Worth, Tex	117	74	63.2	43	36.8	0	0.0
Fresno, Calif	110	51	46.4	59	53.6	0	0.0
Gary, Ind	22	19	86.4	3	13.6	0	0.0
Grand Rapids, Mich	32	10	31.3	22	68.8	0	0.0
Greensboro, NC	68	46	67.6	22	32.4	0	0.0
Greenville, SC	34	28	82.4	6	17.6	0	0.0
Harrisburg, Pa	11	6	54.5	5	45.5	0	0.0
Hartford, Conn	48	21	43.8	27	56.3	0	0.0
Honolulu, Hawaii	147	38	25.9	108	73.5	1	0.7
Houston, Tex	482	299	62.0	182	37.8	1	0.2
Indianapolis, Ind	50	36	72.0	13	26.0	1	2.0
Jacksonville, Fla	105	86	81.9	19	18.1	0	0.0
Jersey City, NJ	84	32	38.1	52	61.9	0	0.0
Kansas City, Mo	63	42	66.7	21	33.3	0	0.0
Knoxville, Tenn	42	37	88.1	5	11.9	0	0.0
Las Vegas, Nev	68	23	33.8	45	66.2	0	0.0
Little Rock, Ark	24	23	95.8	1	4.2	0	0.0
Los Angeles, Calif	1,265	349	27.6	902	71.3	14	1.1
Louisville, Ky	47	42	89.4	5	10.6	0	0.0
McAllen, Tex	75	28	37.3	47	62.7	0	0.0
Memphis, Tenn	97	91	93.8	6	6.2	0	0.0
Miami, Fla	273	110	40.3	163	59.7	0	0.0
Middlesex, NJ	82	19	23.2	63	76.8	0	0.0

1. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.

Table 41. (Cont'd) Tuberculosis Cases, U.S.-born Persons and Foreign-born Persons: Metropolitan Statistical Areas with $\geq 500,000$ Population, 1999

Metropolitan Statistical Area	Total Cases	U.S.-born Persons		Foreign-born Persons ¹		Unknown	
		No.	%	No.	%	No.	%
Milwaukee, Wis	59	38	64.4	21	35.6	0	0.0
Minneapolis-St. Paul, Minn	161	34	21.1	127	78.9	0	0.0
Mobile, Ala	34	29	85.3	5	14.7	0	0.0
Monmouth-Ocean City, NJ	33	17	51.5	16	48.5	0	0.0
Nashville, Tenn	85	64	75.3	21	24.7	0	0.0
Nassau-Suffolk, NY	129	47	36.4	82	63.6	0	0.0
New Haven, Conn	65	22	33.8	42	64.6	1	1.5
New Orleans, La	122	106	86.9	14	11.5	2	1.6
New York, NY	1,540	610	39.6	856	55.6	74	4.8
Newark, NJ	181	96	53.0	83	45.9	2	1.1
Norfolk, Va	62	44	71.0	18	29.0	0	0.0
Oakland, Calif	338	131	38.8	207	61.2	0	0.0
Oklahoma City, Okla	79	63	79.7	16	20.3	0	0.0
Omaha, Neb	9	4	44.4	5	55.6	0	0.0
Orange County, Calif	245	32	13.1	212	86.5	1	0.4
Orlando, Fla	154	119	77.3	34	22.1	1	0.6
Philadelphia, Pa	299	179	59.9	113	37.8	7	2.3
Phoenix, Ariz	159	82	51.6	76	47.8	1	0.6
Pittsburgh, Pa	62	47	75.8	15	24.2	0	0.0
Portland, Ore	87	29	33.3	58	66.7	0	0.0
Providence, RI	52	26	50.0	26	50.0	0	0.0
Raleigh-Durham, NC	79	55	69.6	23	29.1	1	1.3
Richmond, Va	28	17	60.7	11	39.3	0	0.0
Riverside-San Bernardino, Calif	192	82	42.7	109	56.8	1	0.5
Rochester, NY	30	19	63.3	11	36.7	0	0.0
Sacramento, Calif	101	39	38.6	52	51.5	10	9.9
St. Louis, Mo	98	77	78.6	20	20.4	1	1.0
Salt Lake City, Utah	32	16	50.0	16	50.0	0	0.0
San Antonio, Tex	100	70	70.0	26	26.0	4	4.0
San Diego, Calif	297	98	33.0	199	67.0	0	0.0
San Francisco, Calif	307	77	25.1	230	74.9	0	0.0
San Jose, Calif	244	20	8.2	224	91.8	0	0.0
Sarasota, Fla	19	15	78.9	4	21.1	0	0.0
Scranton, Pa	23	16	69.6	7	30.4	0	0.0
Seattle, Wash	127	44	34.6	83	65.4	0	0.0
Springfield, Mass	12	4	33.3	8	66.7	0	0.0
Stockton, Calif	74	18	24.3	56	75.7	0	0.0
Syracuse, NY	37	31	83.8	6	16.2	0	0.0
Tacoma, Wash	43	22	51.2	21	48.8	0	0.0
Tampa-St. Petersburg, Fla	156	120	76.9	36	23.1	0	0.0
Toledo, Ohio	10	8	80.0	2	20.0	0	0.0
Tucson, Ariz	46	30	65.2	16	34.8	0	0.0
Tulsa, Okla	46	37	80.4	9	19.6	0	0.0
Vallejo, Calif	35	16	45.7	19	54.3	0	0.0
Ventura, Calif	62	26	41.9	36	58.1	0	0.0
Washington, DC	366	118	32.2	248	67.8	0	0.0
West Palm Beach, Fla	108	59	54.6	49	45.4	0	0.0
Wichita, Kan	29	19	65.5	9	31.0	1	3.4
Wilmington, Del	15	8	53.3	7	46.7	0	0.0
Youngstown, Ohio	10	8	80.0	2	20.0	0	0.0
Total - 100 Areas	#####	6,411	48.9	6,553	50.0	147	1.1

1. Includes persons born outside the United States, American Samoa, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, Midway Island, the Commonwealth of the Northern Mariana Islands, Puerto Rico, the Republic of Palau, U.S. Minor Outlying Islands, U.S. Miscellaneous Pacific Islands, and the U.S. Virgin Islands.

Appendix A

Technical Notes

National Surveillance for Tuberculosis

All reporting areas (i.e., the 50 states, the District of Columbia, New York City, Puerto Rico, and other U.S. jurisdictions in the Pacific and Caribbean) report tuberculosis (TB) cases to CDC using a standard case report form, Report of a Verified Case of Tuberculosis (RVCT).¹ Reported TB cases are verified according to the TB case definition for public health surveillance (*MMWR* 1997;46[No. RR-10]:40-1). Cases may be verified using the laboratory or clinical case definition. A case may be verified by the laboratory case definition either by (1) isolation of *M. tuberculosis* from a clinical specimen, OR (2) demonstration of acid-fast bacilli (AFB) in a clinical specimen when a culture has not been or cannot be obtained. A case may be verified by the clinical case definition in the presence of ALL of the following clinical criteria: (a) a positive tuberculin skin test result, (b) other signs and symptoms compatible with TB, such as an abnormal, unstable (worsening or improving) chest radiograph, or clinical evidence of current disease, (c) treatment with two or more antituberculosis medications, and (d) a completed diagnostic evaluation. When patients are diagnosed with TB but do not meet the case definition (e.g., anergic patients with a clinical picture consistent with TB but without laboratory evidence of *M. tuberculosis*), reporting areas also have the option of verifying TB cases based on provider diagnosis.

In January 1993, in conjunction with state and local health departments, CDC implemented an expanded surveillance system for TB to collect additional data to better monitor and target groups at risk for TB disease, to estimate and follow the extent of drug-resistant TB, and to evaluate outcomes of TB cases. The RVCT form for reporting TB cases was revised to collect information on occupation, the initial drug regimen, human immunodeficiency virus (HIV) test results, history of substance abuse and homelessness, and residence in correctional or long-term care facilities at the time of diagnosis. RVCT Follow Up Report-1 was added to collect drug susceptibility results for the initial *M. tuberculosis* isolate from patients with culture-positive disease. To evaluate the outcomes of TB therapy, RVCT Follow Up Report-2 was added to collect information on the reason and date therapy was stopped, the type of health care provider, sputum culture conversion, the use of directly observed therapy, and the results of drug susceptibility testing for the final *M. tuberculosis* isolate from patients with culture-positive disease. Since 1993, RVCT data have been reported to CDC using software specifically developed for expanded TB surveillance (i.e., SURVS-TB, 1993-1997; TIMS, 1998-1999). The instructions for completing the RVCT forms and the definitions for all data items were included in the software user's guide. The summary data presented in this publication for 1999 (and for 1997, Tables 33-35) and the trend data for 1993-1999 (Tables 7-10) were received at CDC via TIMS by May 3, 2000.

¹Other U.S. jurisdictions include American Samoa, the Commonwealth of the Northern Mariana Islands, the Federated States of Micronesia, Guam, the Republic of the Marshall Islands, the Republic of Palau, and the U.S. Virgin Islands. RVCT data for 1999 were available from American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the Republic of Palau.

Completion of Tuberculosis Therapy

Tables 9 and 35 are recent additions to this publication and present rates of completion of TB therapy (COT). Data collected by RVCT Follow Up Report-2 on date and reason therapy stopped (e.g., patient completed therapy, moved, was lost) were used to calculate rates of COT. Cases were stratified by the indicated length of therapy, based on current American Thoracic Society/CDC treatment guidelines² and the patient's initial drug susceptibility test results, age, and site of disease.

The adequacy of the treatment regimen (e.g., the sufficiency of the duration of therapy, the appropriateness of the prescribed TB drugs) was not evaluated in this analysis. Acquired drug resistance during therapy with the need for a longer duration of therapy was also not considered in this analysis.

In Table 35, the first column shows the total number of cases reported during 1997. The remaining columns are grouped under three headings: therapy of 1 year or less indicated, therapy greater than 1 year indicated, and overall. For patients with an initial isolate resistant to rifampin and for pediatric patients (age under 15 years old) with meningeal, bone or joint, or miliary disease, data were included under the category of greater than 1 year of therapy indicated. For all other patients, including those with culture-negative disease, those with an unknown culture status, and those with culture-positive disease but unknown initial drug susceptibility test results, data were included under the category of 1 year or less of therapy indicated. Table 9 presents data only for the category of therapy of 1 year or less indicated.

In Table 35, each group under an indicated length of therapy has an initial column showing the number of cases in persons who were alive at diagnosis and prescribed an initial regimen of one or more drugs, and who did not die during therapy. This number was used as the denominator in COT rate calculations. COT rates, shown as percentages, were only calculated for areas reporting reason therapy stopped for at least 90% of cases shown in the overall column. For the group with an indicated length of therapy of 1 year or less, rates are shown for both completion of therapy in 1 year or less (COT ≤ 1 year) and for COT, regardless of duration of therapy (i.e., duration of therapy ≤ 1 year, >1 year, or unknown). For COT ≤ 1 year, the numerator included only those patients completing therapy in ≤ 365 days (based on the dates therapy started and stopped). Patients with missing dates were classified as "treatment not completed" for this calculation. Rates of COT, regardless of duration of therapy, were calculated by dividing the number of patients reported as having completed therapy by the number of patients listed in the first column of each group. Patients with an outcome other than completed therapy (i.e., moved, lost, refused treatment, and other) were classified as "treatment not completed." Patients with an unknown outcome were also classified as "treatment not completed." For the remaining two groups of indicated therapy length (greater than 1 year and overall), only rates of COT, regardless of duration of therapy, are presented. Table 9 provides rates for COT ≤ 1 year and for COT, regardless of duration of therapy, only for the group with an indicated therapy of 1 year or less.

Acknowledgment: Tables 9 and 35 were developed in collaboration with the Field Services Branch, Division of Tuberculosis Elimination, CDC.

²ATS/CDC. Treatment of tuberculosis and tuberculosis infection in adults and children. *Am J Respir Crit Care Med* 1994;149:1359-74.

Site of TB Disease

Tables 5, 6, 21, 22, and 38 reflect a recent change in the definition of miliary disease that is used in this publication. Miliary disease is now classified as both an extrapulmonary and a pulmonary form of TB. In publications prior to 1997, miliary disease was classified as extrapulmonary TB unless pulmonary disease was reported as the major site of TB disease.

Reporting of HIV Infection

Table 31 shows information on HIV status for TB cases among persons aged 25-44 years, the age group in which 75% of AIDS cases occur (CDC. *HIV/AIDS Surveillance Report* 1999;11[No. 2]:16). The information on HIV status for TB cases reported in 1999 is incomplete. Reasons for incomplete reporting of HIV test results to the national surveillance system include concerns about confidentiality, which may limit the exchange of data between TB and HIV/AIDS programs; laws and regulations in certain states and local jurisdictions that have been interpreted as prohibiting the HIV/AIDS program from sharing the HIV status of TB patients with the TB program, or from reporting patients with TB and AIDS to the TB program; and reluctance by health care providers to report HIV test results to the TB surveillance program staff. In addition, health care providers may not offer counseling and HIV testing to some TB patients because of a lack of resources or of appropriately trained staff, or due to the perception that selected patients (e.g., foreign-born persons) are not at risk for HIV infection.

Data on the HIV infection status of reported TB cases in 1999 should be interpreted with caution. These data are not representative of all TB patients with HIV infection. HIV testing is performed after a patient receives counseling and gives informed consent. Since testing is voluntary, some TB patients may decline HIV testing. TB patients who are tested anonymously may choose not to share the results of HIV testing with their health care provider. TB patients managed in the private sector may receive confidential HIV testing, but results may not be reported to the TB program in the health department. In addition, many factors may influence HIV testing of TB patients, including the extent to which testing is targeted or routinely offered to specific groups (e.g., 25- to 44- year-old males, injecting drug users, homeless persons), and the availability of and access to HIV testing services. These data do not provide a minimum estimate of the proportion of TB patients known to be HIV infected in a reporting area.

Tabulation and Presentation of TB Data

This report primarily presents summary data for TB cases reported to CDC in 1999. Data from the RVCT Follow Up Report-2 (i.e., completion of therapy, use of directly observed therapy, and type of health care provider) are presented for cases reported in 1997. In addition, trend data are presented in Tables 1 through 10. TB cases are tabulated by the year in which the reporting area verified that the patient had TB and included the patient in its official annual TB case count. Totals for the U.S. only include data from the 50 states, the District of Columbia, and New York City. Age group tabulations are based on the patient's age in the month and year the patient was reported to the health department as a suspected TB case. State or metropolitan area data tabulations are based on the patient's residence at diagnosis of TB (see Appendix C: "Recommendations for Counting Reported Tuberculosis Cases").

Tables 37 through 41 present data by metropolitan statistical areas (MSAs) with an estimated 1999 population of 500,000 or more. Metropolitan areas are defined by the federal Office of Management and Budget, and the definitions effective as of June 30, 1998, were used for this publication (www.census.gov/population/www/estimates/pastmetro.html). The metropolitan area definitions apply to all areas except the six New England states; for these states, the New England County Metropolitan Areas (NECMAs) are used. Metropolitan areas are named for a central city in the MSA or NECMA, may include several cities and counties, and may cross state boundaries. For example, the TB cases and case rates presented for the District of Columbia in Table 15 include only persons residing within the geographic boundaries of the District. However, the TB cases and case rates for

Washington, D.C. (Table 37), include persons residing within the several counties in the metropolitan area, including counties in Maryland, Virginia, and West Virginia. A list of the cities and counties that comprised each metropolitan area in 1998 is available from the National Technical Information Service (1-800-553-NTIS, accession no. PB98-502198, Metropolitan Areas for 1998).

Rates

Rates are expressed as the number of cases reported each calendar year per 100,000 population. Population denominators used in calculating TB rates are based on official midyear (July 1) post-census estimates from the U.S. Census Bureau. In Tables 1 and 15, the U.S. total and state populations for 1999 were obtained from *State Population Estimates: Annual Time Series, July 1, 1990, to July 1, 1999, ST-99-3* (www.census.gov/population/estimates/state/st-99-3.txt). In Tables 2, 3, and 12, populations by age, sex, race, and Hispanic origin were obtained from *National Population Estimates for the 1990's: Monthly Postcensal Resident Population, by Single Year of Age, Sex, Race, and Hispanic Origin* (www.census.gov/population/estimates/nation/e90s/e9999rmp.txt). The populations for U.S.-born and foreign-born populations (Table 4) were obtained from *Quarterly Estimates of the United States Foreign-born and Native Resident Populations: April 1, 1990, to July 1, 1999* (www.census.gov/population/estimates/nation/nativity/fbtab001.txt).

Mortality Data

Official TB mortality statistics for the United States are compiled by the National Center for Health Statistics (NCHS), CDC. The annual mortality rate is calculated as the number of deaths due to TB in that year, divided by the estimated population for the year, multiplied by 100,000 (Table 1). The number of deaths for 1998 was obtained from the NCHS *National Vital Statistics Reports* (Vol. 47, No. 25), October 5, 1999. The number of deaths for 1999 was not available at the time of this publication.

Appendix B

Tuberculosis Case Definition for Public Health Surveillance¹

Tuberculosis (Revised 9/96)

Clinical description

A chronic bacterial infection caused by *Mycobacterium tuberculosis*, characterized pathologically by the formation of granulomas. The most common site of infection is the lung, but other organs may be involved.

Clinical case definition

A case that meets the following criteria:

- A positive tuberculin skin test
- Other signs and symptoms compatible with tuberculosis (e.g. an abnormal, unstable [i.e., worsening or improving] chest radiographs, or clinical evidence of current disease)
- Treatment with two or more antituberculosis medications
- Completed diagnostic evaluation

Laboratory criteria for diagnosis

- Isolation of *M. tuberculosis* from a clinical specimen* or
- Demonstration of *M. tuberculosis* from a clinical specimen by nucleic acid amplification test†, or
- Demonstration of acid-fast bacilli in a clinical specimen when a culture has not been or cannot be obtained.

Case classification

Confirmed: a case that meets the clinical case definition or is laboratory confirmed

Comment

A case should not be counted twice within any consecutive 12-month period. However, cases in which the patients had previously had verified disease should be reported again if the patients were discharged from treatment. Cases also should be reported again if patients were lost to supervision for >12 months and disease can be verified again. Mycobacterial diseases other than those caused by *M. tuberculosis* complex should not be counted in tuberculosis morbidity statistics unless there is concurrent tuberculosis.

¹CDC. *Case definitions for infectious conditions under public health surveillance*. *MMWR* 1997;46(No. RR-10):40-41.)

*Use of rapid identification techniques for *M. tuberculosis* (e.g., DNA probes and mycolic acids high-pressure liquid chromatography performed on a culture from a clinical specimen) are acceptable under this criterion.

†Nucleic acid amplification (NAA) tests must be accompanied by culture for mycobacteria species. However, for surveillance purposes, CDC will accept results obtained from NAA tests approved by the Food and Drug Administration (FDA) and used according to the approved product labeling on the package insert. Current FDA-approved NAA tests are only approved for smear-positive respiratory specimens.

Appendix C

Recommendations for Counting Reported Tuberculosis Cases (Revised July 1997)

Since publication of the “Recommendations for Counting Reported Tuberculosis Cases”¹ in January 1977, numerous changes have occurred and many issues have been raised within the field of tuberculosis (TB) surveillance. This current version updates and supersedes the previous version; it clarifies the parameters for counting TB cases among (a) immigrants, resident aliens, and border crossers, (b) military personnel stationed in the United States and abroad, and (c) persons diagnosed within the Indian Health Service and correctional facilities.

A distinction should be made between **reporting** TB cases to a health department and **counting** TB cases for determining incidence of disease. Throughout each year, TB cases and suspected cases are reported to public health authorities by sources such as clinics, hospitals, laboratories, and health care providers. From these reports, the state or local TB control officer must determine which cases meet the current surveillance definition for TB disease. These verified TB cases are then counted and reported to the Centers for Disease Control and Prevention (CDC).

I. Reporting TB Cases.—CDC recommends that health care providers and laboratories be required to report all TB cases or suspected cases to state and local health departments based on the current “Case Definition for Public Health Surveillance.”² This notification is essential in order for TB programs to

- Ensure case supervision
- Ensure completion of appropriate therapy
- Ensure completion of timely contact investigations
- Evaluate program effectiveness
- Assess trends and characteristics of TB morbidity

II. TB Surveillance.—For purposes of surveillance, a case of TB is defined on the basis of laboratory and/or clinical evidence of active disease due to *M. tuberculosis* complex.*

****Mycobacterium tuberculosis* complex** (*M. tuberculosis* complex) consists of three mycobacterial species: *M. tuberculosis*, *M. bovis*, and *M. africanum*. These species are identical in DNA homology studies. In terms of their ability to cause clinical disease and be transmissible from person to person, *M. bovis* and *M. africanum* behave like *M. tuberculosis*; therefore, disease caused by any of the three organisms should be reported as TB, using the Report of Verified Case of Tuberculosis (RVCT). The only exception is the BCG strain of *M. bovis*, which may be isolated from persons who have received the vaccine for protection against TB or as cancer immunotherapy; disease caused by this *M. bovis* strain should not be reported as TB because the transmission is iatrogenic (treatment-induced), rather than person-to-person or communicable.

a. Laboratory Case Definition.

- Isolation of *M. tuberculosis* complex from a clinical specimen. The use of rapid-identification techniques for *M. tuberculosis* performed on a culture from a clinical specimen, such as DNA probes and high-pressure liquid chromatography (HPLC), is acceptable under this criterion.

OR

- Demonstration of *M. tuberculosis* from a clinical specimen by nucleic acid amplification (NAA) test. NAA tests must be accompanied by cultures of mycobacterial species. However, for surveillance purposes, CDC will accept results obtained from NAA tests that are approved by the Food and Drug Administration (FDA) and used according to the approved product labeling on the package insert. Current FDA-approved NAA tests are only approved for use on smear-positive respiratory specimens.

OR

- Demonstration of acid-fast bacilli (AFB) in a clinical specimen when a culture has not been or cannot be obtained; historically this criterion has been most commonly used to diagnose TB in the postmortem setting.

b. Clinical Case Definition.—In the absence of laboratory confirmation of *M. tuberculosis* complex after a diagnostic process has been completed, persons must have **all** of the following criteria for clinical TB:

- Evidence of TB infection based on a positive tuberculin skin test

AND

- One of the following:
 - (1) Signs and symptoms compatible with current TB disease, such as an abnormal, unstable (worsening or improving) chest radiograph, or
 - (2) Clinical evidence of current disease (e.g., fever, night sweats, cough, weight loss, hemoptysis)

AND

- Current treatment with two or more anti-TB medications

NOTE: The case definition described herein was developed for use in this document and is not intended to replace the case definition for TB as stated in the current “Case Definitions for Infectious Conditions Under Public Health Surveillance.”

In addition, the software for TB surveillance developed by CDC includes a calculated variable called “Vercrit,” for which one of the values is “Provider Diagnosis.” “Provider Diagnosis” is selected when the user chooses to override a “Suspect” default value in the case verification screen as “Verified by Provider Diagnosis.” Thus, “Provider Diagnosis” is not a component of the case definition for TB in the current “Case Definitions for Infectious Conditions Under Public Health Surveillance” publication. CDC’s national morbidity reports have traditionally included all cases that are considered verified by the reporting areas, without a requirement that cases meet the published case definition.

III. Counting TB Cases.—Cases that meet the current CDC surveillance case definition for verified TB are counted by 52 reporting areas with count authority (50 states, District of Columbia, and New York City) to determine annual incidence for the United States. The remaining 7 reporting areas (American Samoa, Federated States of Micronesia, Guam, Northern Mariana Islands, Puerto Rico, Republic of Palau, and the U.S. Virgin Islands) report cases to the CDC but are not included in the annual incidence for the United States. Laboratory and clinical case definitions are the two primary diagnostic categories used by the CDC “Case Definitions for Infectious Conditions Under Public Health Surveillance.”

Most verified TB cases are accepted for counting based on laboratory confirmation of *M. tuberculosis* complex from a clinical specimen.

A person may have more than one discrete (separate and distinct) episode of TB. If disease recurs in a person within any 12-consecutive-month period, count only one episode as a case for that year. However, if TB disease recurs in a person, **and** if more than 12 months have elapsed since the person was discharged from or lost to supervision, the TB is considered a separate episode and should be counted as a new case.

Mycobacterial diseases other than those caused by *M. tuberculosis* complex should not be counted in TB morbidity statistics unless there is concurrent TB.

a. Verified TB Cases.

COUNT

Count only verified TB cases that meet the laboratory or clinical case definitions (see Section II). The diagnosis of TB must be verified by the TB control officer or designee. The current CDC surveillance case definition for TB describes and defines the criteria to be used in the case definition for TB disease.

DO NOT COUNT

If diagnostic procedures have not been completed, do not count; wait for confirmation of disease. Do not count a case for which two or more anti-TB medications have been prescribed for preventive therapy for exposure to multidrug-resistant (MDR) TB, or while the diagnosis is still pending.

b. Nontuberculous Mycobacterial Diseases (NTM).

COUNT

An episode of TB disease diagnosed concurrently with another nontuberculous mycobacterial disease should be counted as a TB case.

DO NOT COUNT

Disease attributed to or caused by nontuberculous mycobacteria alone should not be counted as a TB case.

c. TB Cases Reported at Death.

COUNT

TB cases first reported to the health department at the time of a person's death are counted as incident cases provided that the person had current disease at the time of death. The TB control officer should verify the diagnosis of TB.

DO NOT COUNT

Do not count as a case of TB if there is no evidence of current disease at the time of death or at autopsy.

d. Immigrants, Refugees, Permanent Resident Aliens, Border Crossers,* and Foreign Visitors.⁴

COUNT

Immigrants and refugees who have been screened overseas for TB and

- have been classified as Class B (B1, B2, or B3)³ or resident aliens
- are not already on anti-TB medications for treatment of tuberculous disease, and
- are examined after arriving in the United States and diagnosed with clinically active TB requiring anti-TB medications should be counted by the locality of their current residence at the time of diagnosis regardless of citizenship status.

Border crossers* and permanent resident aliens who are diagnosed with TB and plan to receive anti-TB therapy from a locality in the United States for 90 days or more should be counted by the locality where they receive anti-TB therapy.

Foreign visitors (e.g., students, commercial representatives, and diplomatic personnel) who are diagnosed with TB, are receiving anti-TB therapy, **and** plan to remain in the United States for 90 days or more should be counted by the locality of current residence.

*Border crosser - defined, in part, by the Immigration and Naturalization Service (INS)⁴ as "a nonresident alien entering the United States across the Mexican border for stays of no more than 72 hours." Border crossers may go back and forth across the border many times in a short period.

DO NOT COUNT

TB cases in immigrants or refugees who have been classified as Class A with a waiver (TB, infectious, “Noncommunicable for travel purposes”)³ should not be counted as new cases even if the persons receive routine initial work-ups in the United States.

TB in persons who are temporarily (<90 days) in the United States, for whom therapy may have been started but who plan to return to their native country to continue therapy, should not be counted in the United States.

e. Out-of-State or Out-of-Area Residents.

COUNT

A person’s TB case should be counted by the locality in which he or she resides at the time of diagnosis. TB in a person who has no address should be counted by the locality that diagnosed and is treating the TB. The TB control officer should notify the appropriate out-of-state or out-of-area TB control officer of the person’s home locality to (1) determine whether the case has already been counted to avoid “double counting,” and (2) agree on which TB control office should count the case if it has not yet been counted.

DO NOT COUNT

Do not count a case in a newly diagnosed TB patient who is an out-of-area resident and whose TB has already been counted by the out-of-area TB control office.

f. Migrants and Other Transients.

COUNT

Persons without any fixed U.S. residence are considered to be the public health responsibility of their present locality and their TB case should be reported and counted where diagnosed.

DO NOT COUNT

Cases in transient TB patients should not be counted when there is evidence that they have already been counted by another locality.

g. Federal Facilities (e.g., Military and Veterans Administration Facilities).

COUNT

Cases in military personnel, dependents, or veterans should be reported and counted by the locality where the persons are residing in the United States at the time of diagnosis and initiation of treatment.

However, if military personnel or dependents are discovered to have TB at a military base outside the United States but are referred elsewhere for treatment (e.g., a military base located within the United States), the TB case should be reported and counted where treated and not where the diagnosis was made.

DO NOT COUNT

Do not count if the case was already counted by another locality in the United States.

h. Indian Health Service.

COUNT

TB should be reported to the local health authority (e.g., state or county) and counted where diagnosed and treatment initiated. However, for a specific group such as the Navajo Nation, which is geographically located in multiple states, health departments should discuss each case and determine which locality should count the case.

DO NOT COUNT

Do not count if the case was already counted by another locality.

i. Correctional Facilities (e.g., Local, State, Federal, and Military).

COUNT

Persons who reside in local, state, federal, or military correctional facilities may frequently be transferred or relocated within and/or between various correctional facilities. TB in these persons should be reported to the local health authority and counted by the locality where the diagnosis was made and treatment plans were initiated.

DO NOT COUNT

Do not count correctional facility residents' TB cases that were counted elsewhere by another locality or correctional facility, even if treatment continues at another locale or correctional facility.

j. Peace Corps, Missionaries, and Other Citizens Residing Outside the United States.

DO NOT COUNT

TB in persons diagnosed outside the United States should not be counted. TB in these persons should be counted by the country in which they are residing regardless of their plans to return to the United States for further work-up or treatment.

IV. Suggested Administrative Practices.—To promote uniformity in TB case counting, the following administrative procedures are recommended:

(a) All TB cases verified during the calendar year by the 52 reporting areas with count authority (50 states, District of Columbia, and New York City) by December 31 will be included in the annual U.S. incidence count for that year. All tuberculosis cases verified during the calendar year by a reporting area with count authority from one of the remaining 7 reporting areas (American Samoa, Federated States of Micronesia, Guam, Northern Mariana Islands, Puerto Rico, Republic of Palau, and the U.S. Virgin Islands) are also counted but are not included in the annual incidence for the United States. Cases for which bacteriologic results are pending or for which confirmation of disease is questionable for any other reason should not be counted until their status is

clearly determined; they should be counted at the time they meet the criteria for counting. This means that a case reported in one calendar year could be included in the morbidity count for the following year. The reporting area with count authority should ensure that there is agreement between final local and state TB figures reported to CDC. Currently, some reporting areas may not use this suggested protocol. Some of these areas may wait until the beginning of the following year when they have received and processed all of the TB cases for inclusion in the annual case count for the previous year. If reporting areas decide to revise their protocols, they should be aware that TB trends may change.

(b) TB is occasionally reported to health departments over the telephone, by letter or fax, or on forms other than the Report of Verified Case of Tuberculosis (RVCT). Such information should be accepted as an official morbidity report if sufficient details are provided; otherwise, the notification should be used as an indicator of a possible TB case (suspect) which should be investigated promptly for confirmation.

V. TB Surveillance Definitions.

Case - an episode of TB disease in a person meeting the laboratory or clinical criteria for TB as defined in the document “Case Definitions for Infectious Conditions Under Public Health Surveillance”² (see Section II for criteria).

Suspect - a person for whom there is a high index of suspicion for active TB (e.g., a known contact to an active TB case or a person with signs/symptoms consistent with TB) who is currently under evaluation for TB disease.

Verification of a TB case - the process whereby a TB case, after the diagnostic evaluation is complete, is reviewed at the local level (e.g., state or county) by a TB control official who is familiar with TB surveillance definitions; if all the criteria for a TB case are met, the TB case is then verified and eligible for counting.

Counting of a TB case - the process whereby a reporting area with count authority evaluates verified TB cases (e.g., assesses for case duplication). These cases are then counted for morbidity in that locality (e.g., state or county) and reported to CDC for national morbidity counting.

***Mycobacterium tuberculosis* complex** (*M. tuberculosis* complex) - consists of three mycobacterial species: *M. tuberculosis*, *M. bovis*, and *M. africanum*. These species are identical in DNA homology studies. In terms of their ability to cause clinical disease and to be transmissible from person to person, *M. bovis* and *M. africanum* behave like *M. tuberculosis*; therefore, disease caused by any of the three organisms should be reported as TB, using the Report of Verified Case of Tuberculosis (RVCT). The only exception is the BCG strain of *M. bovis*, which may be isolated from persons who have received the vaccine to protect against TB or as cancer immunotherapy; disease caused by this *M. bovis* strain should not be reported as TB because the transmission is iatrogenic (treatment-induced), rather than person-to-person or communicable.

Nontuberculous mycobacteria (NTM) - mycobacteria other than *Mycobacterium tuberculosis* complex that can cause human infection or disease.

Common nontuberculous mycobacteria include *M. avium* complex or MAC (*M. avium*, *M. intracellulare*), *M. kansasii*, *M. marinum*, *M. scrofulaceum*, *M. chelonae*, *M. fortuitum*, and *M. simiae*. Other terms have been used to represent NTM, including MOTT (mycobacteria other than TB) and “atypical” mycobacteria.

Reporting area - areas responsible for counting and reporting verified TB cases to CDC. Currently there are 59 reporting areas; 50 states, District of Columbia, New York City, American Samoa, Federated States of Micronesia, Guam, Northern Mariana Islands, Puerto Rico, Republic of Palau, and the U.S. Virgin Islands. Annual incidence of tuberculosis for the United States is based on 52 reporting areas (50 states, District of Columbia, and New York City).

Alien - defined by the Immigration and Naturalization Service (INS)⁴ as “any person not a citizen or national of the United States.”

Border crosser - defined, in part, by the Immigration and Naturalization Service (INS)⁴ as “a nonresident alien entering the United States across the Mexican border for stays of no more than 72 hours.” Border crossers may go back and forth across the border many times in a short period.

Class A (TB, Infectious) - defined by the Division of Quarantine³ as an alien “with an abnormal chest radiograph or series of chest radiographs suggestive of current pulmonary TB and one or more positive sputum smear examinations for acid-fast bacilli.” This person is not authorized to enter the United States unless a waiver has been granted (see definition for Class A - TB, Infectious, “Noncommunicable for travel purposes.”)

Class A (TB, Infectious, “Noncommunicable for travel purposes”) - defined by the Division of Quarantine³ as an alien “with an abnormal chest radiograph or series of chest radiographs suggestive of active TB, a history of one or more positive sputum smear examinations for acid-fast bacilli, currently on recommended treatment, and sputum smears that are negative for acid-fast bacilli on 3 consecutive days.” This person is authorized to enter the United States if a waiver has been granted.

Class B1 (TB, clinically active, not infectious) - defined by the Division of Quarantine³ as an alien “with an abnormal chest radiograph or series of chest radiographs suggestive of active TB, and sputum smears that are negative for acid-fast bacilli on 3 consecutive days.” This person may be on anti-TB medications when entering the United States.

Class B1 (Extrapulmonary TB, clinically active, not infectious) - defined by the Division of Quarantine³ as an alien “with radiographic or other evidence of extrapulmonary TB, clinically active.” This person may be on anti-TB medications when entering the United States.

Class B2 (TB, not clinically active) - defined by the Division of Quarantine³ as an alien “with an abnormal chest radiograph or series of chest radiographs

suggestive of active TB, not clinically active (e.g., fibrosis, scarring, pleural thickening, diaphragmatic tenting, blunting of costophrenic angles.) Sputum smears are not required.” Such a person who “completed the recommended course of anti-TB therapy and whose chest radiographs are stable should be reported as Class B2 - TB, treatment completed.” This person may be on anti-TB medications when entering the United States.

Class B3 (Consistent with TB, old or healed) - defined by the Division of Quarantine³ as an alien “with an abnormal chest radiograph or series of chest radiographs (the only abnormality is a calcified lymph node, calcified primary complex, or calcified granuloma). Sputum smears are not required.”

Immigrant - defined by the Immigration and Naturalization Service (INS)⁴ as “an alien admitted to the United States as a lawful permanent resident. Immigrants are those persons lawfully accorded the privilege of residing permanently in the United States. They may be issued immigrant visas by the Department of State overseas or adjusted to permanent resident status by the Immigration and Naturalization Service of the United States.”

Permanent Resident Alien - see Immigrant.

References

1. *Recommendations for Counting Reported TB Cases*. Atlanta: CDC, January 1977.
2. CDC. Case definitions for infectious conditions under public health surveillance. *MMWR* 1997;46(No. RR-10):40-41.
3. *Technical Instructions for Medical Examination of Aliens*. Atlanta: CDC, Division of Quarantine, revised July 13, 1992.
4. *Statistical Yearbook of the Immigration and Naturalization Service, 1994*. Washington, DC: US Department of Justice, Immigration and Naturalization Service, 1995.